THE

Journal of the American Medical Association.

EDITED FOR THE ASSOCIATION BY N. S. DAVIS.

PUBLISHED WEEKLY.

Vol. VIII. CHICAGO, JANUARY 22, 1887. No. 4.

ORIGINAL LECTURES.

ON DIABETES.

A Clinical Lecture delivered to the Students of the Western Pennsylvania Medical College, on October 29, 1886,

BY W. SNIVELY, M.D.,

PROFESSOR OF CLINICAL MEDICINE, PITTSBURGH, PA.

[REPORTED BY R. M. JONES.]

GENTLEMEN:—The case of the young man whom I present for your consideration to-day, affords us an opportunity to study a very interesting disease. I feel certain that many of you will make a correct diagnosis when I read you his clinical history. James G., æt. 25 years, laborer; married, and the father of two children, both living. Height 5 feet 4½ inches, weight 95 pounds. Family history good; father, mother, four brothers and one sister all living and in good health. Previous to eighteen months ago he had always enjoyed good health. Eighteen months ago he contracted a gonorrhœa, which lasted three months. He then weighed 150 pounds. About the same time he began to emaciate and grow weak, and he suffered from sharp pains in his body and limbs. Doctors told him that it was muscular rheumatism, and treated him for that disease, but without benefit. He continued to suffer progressive emaciation and weakness, until about three months ago, he noticed that his urine began to "dribble," wetting his clothing. About the same time it began to increase in quantity, and his thirst became enormous. He could not get enough to drink. His appetite also became proportionally increased, and he could scarcely get enough to eat. Notwithstanding the large amount of food and liquid ingested, he continued to emaciate. He also suffered from obstinate constipation. He took pills, and powders, and capsules, and salts, to physic himself, but without avail; they would not operate. The sharp pains from which he suffered have greatly diminished, but have not entirely ceased. His urine, which I show you, is highly acid; its sp. gr. is 1,030, and during the twenty-four hours ending at ten o'clock this morning he passed 273 ozs. It contains a large quantity of sugar.

You are now in possession of the clinical history of this case. What is the diagnosis? Diabetes. This young man presents *au grand complet*, the five fundamental symptoms, which by their union form the morbid complexus which we term diabetes. 1st, the presence of a notable quantity of sugar in the urine. This we call glycosuria; 2d, increase of the urinary secretion, or polyuria; 3d, increase of thirst, or polydipsia; 4th, increase of appetite, or polyphagia; 5th, emaciation, or autophagia. The four first phenomena are contemporaneous in their appearance; the fifth appears later; there is nothing definite in the period of its development.

The polyuria is the result of physical conditions, easy to comprehend. Glycosuria is not the effect of a pathological work, located in the kidneys; this primordial symptom is the direct consequence of the presence of sugar in the blood in abnormal quantity; there is glycosuria only because there is glycæmia, and this alteration of the blood holds under its immediate dependence not only the glycosuria, but all the other phenomena characteristic of diabetes. The presence of sugar in the blood increases the viscidity and the density of the liquid; in this condition, endosmotic absorption through the vascular walls becomes more active, and there is established a species of intra-vascular aqueous plethora, which is indispensable for the free circulation of the blood. Thus is produced a permanent increase of the intra-vascular pressure, and, in the kidneys, this abnormal condition translates itself by an augmentation of the excretion; this is the first cause of the polyuria. To this physical cause, another of a chemical order is added; the sugar, the elimination of which by the urine is always proportionate to the richness of the glycæmia, can pass through the renal filter only when diluted in a certain quantity of water; this superabundant water is abstracted by absorption from the peri-vascular tissues, and the polyuria is thus maintained at the degree necessary for the elimination of the sugar. This polyuria, the explanation of which has given rise to many different theories is merely the direct consequence of certain physical and chemical conditions. The first link in the pathological chain is the alteration of the blood by sugar, or glycæmia.

In order to make up for the abstraction of water to which his organism is subjected, the patient must ingest a proportionate amount of liquid; hence the polydipsia, the amount of which is always in exact relation to the polyuria. Frank, Christison, and other physicians once asserted that the amount of urine excreted exceeded the amount of liquid ingested. This could not be true, because it would be unphysiological, and it has been demonstrated as incorrect by Griesinger and other observers. This

paradoxical discordance between the amount of liquid rendered and the amount ingested, is quite exceptional and when it exists, is forcedly temporary.

The polyphagia explains itself; it results from the losses which the organism submits in materials, nitrogenous and otherwise; the analysis of the urine reveals at once the necessity and the amount, and permits us to understand the frequent modifications.

The fifth and last essential symptom of diabetes, the emaciation, or autophagia, is not less constant than the preceding, but it varies greatly as to the period of its development. The variations which the emaciation presents, in its appearance and in its rapidity, depends upon the source of the sugar lost by the patient. Take three individuals suffering from well characterized diabetes; their condition is in appearance the same, but a short time will show profound differences in the actual situation of each of these patients. You exclude sugar and starch from the diet of the first and in two or three days the glycosuria will disappear, and so long as the patient restricts himself to this rigorous regimen he has the benefit of this artificial cure.

Exclude starch and sugar from the diet of the second, and the glycosuria does not disappear; it merely diminishes, and this diminution may be quite temporary.

Put your third patient upon the same regimen and he continues to manufacture sugar as formerly.

Here, then, masked by an apparent similitude, are three conditions profoundly dissimilar. The interpretation is clear. The first patient makes the sugar which he loses out of the starchy aliments. The second, at the expense of the nitrogenous aliments. The third, at the expense of himself. What happens in regard to emaciation? The first patient does not emaciate. The second does not emaciate so long as his digestive organs can utilize the superabundant aliment which he ingests; in him polyphagia is a necessity—it maintains the nutritive equilibrium. Patients of this class can resist for months and years without emaciation, so long as the appetite and the digestion can satisfy this exaggerated activity; when the digestion and appetite fail, they emaciate rapidly. The third patient emaciates promptly and fatally, for subjected to a dietetic regimen, he makes sugar at the expense of himself. If you will permit me an alliance of words which render exactly the distinction which I have just established, I will say that the first patient has a starchy glycosuria, and that the other two have a nitrogenous glycosuria, the materials of which are furnished either by nitrogenous food or by the disintegration of their own tissues.

Here is a first point acquired, but this is not all; another condition, too often misunderstood, remains to be considered, if we wish to appreciate the signification of diabetic emaciation. So long as the excretion of urea is not increased, or so long as the increase can be imputed to polyphagia, this is not an additional cause of deterioration for the organism, the equilibrium is maintained by the integrity of the digestive functions; but when the aliments ingested fail to provide for the excess of urea lost, it necessarily follows that this urea has its source in the disintegration of the tissues; it is not only the glycosuria, it is the azoturia which weakens the patient. He lives at the expense of himself, he has autophagia. If we re-examine, from this point of view, the three classes of patients which we have established, we will find that these two causes of consumption are usually united in the same patients. Those who make their glucose but with the starchy aliments, do not present, usually, an increase of urea; they escape both causes of emaciation. But those who make their sugar with their nitrogenous aliments, necessarily draw from themselves a part of the urea which they lose, even when it is not in excess, since the vast proportion of the albuminoid materials which they ingest is viciously employed in making sugar. The precise experiments of Sidney Ringer establish clearly the reality of this autophagic consumption, in showing that the excretion of urea and of sugar continue when the patient is subjected to rigid diet. These are facts, not hypotheses, and must serve as a basis for the interpretation of the clinical differences presented by diabetes.

During the first period, the patient forms his sugar out of the starchy aliments; the nutritive aberration affects only the organic evolution of the starchy matters. Later, in the second phase of the disease, the aberration affects equally the nitrogenous matters, the patient employs the greater portion of them in forming glucose; if the polyphagia can repair the losses, the patient may remain plump, or fail but slightly; the organic budget is still in equilibrium, but it is an artificial equilibrium. In the third period, the equilibrium is broken, the patient employs his food and his own tissues to form sugar and urea in excess; the expenses exceed the receipts, and the bankruptcy of the organism is fatal.

In addition to these fundamental symptoms which we have just passed in review, diabetes presents some secondary symptoms which are subordinate to the primary. We will study them by grouping them according to the pathogenic mode; this method will have the advantage of instructing you, at the same time, of the existence and of the genesis of these phenomena.

Phenomena Dependent upon Glycæmia.—The blood cannot contain an abnormal element in notable quantity without all the liquids of the organism becoming impregnated with it. Griesinger and Semmola have demonstrated it in the perspiration. But perspiration is not often present in these patients; the skin of our patient has been persistently dry. Griesinger demonstrated a superabundance of sugar in the perspiration of patients in whom the urinary sugar had greatly diminished without corresponding amelioration in the general condition. The complementary elimination compensated for the diminution of the glycosuria; this teaches us that we must not judge the losses of our patient simply by the examination of the urine. The saliva often contains sugar, and it is to this alteration of the buccal liquid that the lesions of the gums and teeth, so frequent in these patients, have been attributed. Our patient has yet pretty sound teeth, but their preservation is perhaps due to his youth.

Impotence is another effect of glycæmia. In some cases the desires are preserved, the venereal act is possible, but it is sterile, for the spermatozoa cannot preserve their activity in a liquid containing sugar; this is sterility, not impotence, but in some patients true impotence exists, with or without anaphrodisia.

It is to the abnormal state of the blood, and to the modifications of the endosmotic exchange between the intra- and the extra-vascular liquids that we must attribute the peculiar predisposition of these patients to the cutaneous and visceral inflammations, and to gangrene. Of the superficial phlegmasias, the most frequent are furuncles and carbuncles. Some physicians, stricken with the frequency of this coincidence, have gone so far as to say that every individual attacked with furuncle or carbuncle, is necessarily the victim of glycosuria; this is erroneous; the frequency of the relation is great, the constancy is not a fact. Nevertheless, in practice we should examine the urine of every patient affected with this species of phlegmasia, and this rule is so much the more important because they are precocious accidents, and may lead to the discovery of a diabetes. The frequency of this complication is so common in Brazil that it is known to the common people, who reason invariably from carbuncle to diabetes. Our patient affirms that he has never suffered from these complications.

The most frequent of the visceral inflammations is pneumonia, which is characterized by its chronicity; often it is chronic from the beginning; besides, when it does present first in the acute form, resolution does not follow the fall of the temperature, the lesion persists and slowly submits the histological modifications proper to the regressive evolution of pulmonary hepatization. This pneumonia terminates quite frequently in gangrene, and this pulmonary gangrene, like the other visceral modifications sometimes encountered in the course of diabetes, have not the characteristic odor of common gangrene. This fact has been verified by a great number of observers.

Visceral gangrenes are not the only ones produced by diabetes; the carbuncles and furuncles of which I have spoken to you, have a marked tendency to sphacelus; in fact, so great, in this respect, is the pathogenic power of glycæmia, that we frequently observe gangrene of the inferior members, which was long considered spontaneous gangrene. The relation of these peripheric gangrenes to diabetes, is to day well known, and the knowledge of this important fact has given rise to an error, the inverse of that which was previously committed. Some observers think that senile gangrene always depends upon diabetes. This assertion is an exaggeration. I have seen, myself, two cases of gangrene of the toes without glycæmia, and these cases are not isolated. Remember the frequency of this relation, but do not believe in its invariability.

Phenomena Dependent upon Glycosuria.—The irritation resulting from the frequent miction of sugary urine is apt to cause redness of the meatus, and a pruritus sometimes insupportable; eruptions of prurigo and herpes often exist in this connection, and may become generalized. In the male, swelling of the prepuce, phimosis and balanitis are sometimes observed. None of these symptoms exist, or have previously existed in our patient; they have no signification from a prognostic standpoint but they have a very great signification for the diagnosis. When you observe these manifestations, you must always examine the urine.

Phenomena Dependent upon Polyuria.—Polydipsia, which we have already discussed, is not the only disorder dependent upon polyuria; to this cause we must refer the obstinate constipation and the dryness of the skin and mucous membranes. Our patient, as you already know, has suffered greatly from these conditions.

Phenomena Dependent upon Consumption.—Phthisis is one of the most common results of the diabetic condition; according to Griesinger, nearly one half of these patients succumb to tuberculization of the lungs. Clinically, diabetic phthisis is distinguished by the almost constant absence of hæmoptysis, by the rapidity with which excavations are formed, and the limited amount of the secretions. It is not rare to see patients with large caverns expectorate almost nothing at all. Our patient presents a striking example of this condition. Two eminent English observers, Wilks and Pavy, contend that the pulmonary caverns of these patients are due to the elimination of chronic pneumonic foci, and not to the presence of tubercles. The utilization of a large number of autopsies can alone settle this problem in pathological anatomy.

Visual troubles, as cataract, so frequent in these cases, are probably to be attributed to the consumption, or rather to the insufficiency of nutrition. Cataract occurs late in the disease, and operative treatment is rarely or never successful.

Diabetes is a condition of long duration. The reported cases in which death occurred in a few weeks are quite exceptional. Generally its progress is uniform and continuous; sometimes remissions occur, lasting a few weeks or months, which have probably been prematurely reported as definitive cures. According to Griesinger, who analyzed a total of 225 cases, the average duration of the disease is two or three years.

The diagnosis is to be based upon the discovery of sugar in the urine. This is a very simple matter when we are led to look for it; what is important is to be conducted to the presumption of the disease. The situation of the physician is the same as for Bright's disease. The affection does not reveal itself openly; it is necessary to suspect it. In order to make an early diagnosis of diabetes, you must be acquainted with the semiological value of certain phenomena which are indications sufficient to demand an immediate examination of the urine.

The polyuria, the insomnia which it produces, the increase of thirst, particularly if it coincides with that of the appetite, are symptoms the signification of which cannot be misunderstood; but there are other circumstances, less demonstrative, which are of real value; these are the pruritus, urethral or vulvar, the swelling and the eruptions of the prepuce or

of the labia, the generalized pruriginous or herpetic eruptions, the *fishy* condition of the linen and clothing. All these conditions, slight as they may appear to you, demand an examination of the urine. So with furuncles and carbuncles, you must think of diabetes and look for sugar.

But, when you have found sugar in the urine, in notable quantity, you are not justified in reporting it as a case of diabetes. Glycosuria is a symptom, and diabetes is a condition which has this for one of its symptoms; it is not constituted by this phenomenon alone. Prolonged observation may be necessary to prove the true character of a glycosuria. The glycosuria which sometimes follows cephalic traumatisms, or certain diseases of the spinal cord, are usually simple, although accompanied by polyuria and polydipsia, but this is not always so; a glycosuria of traumatic origin may become the point of departure of diabetes in an individual predisposed. The diagnosis must in every case be based upon the quantity of glucose lost, upon the other modifications of the urine, upon the constitutional symptoms, and upon the effect produced by diet.

The causes of diabetes are far from being completely elucidated; pathological anatomy has revealed no constant and characteristic lesion. Alterations of the kidneys, analogous to those of Bright's disease, are most frequent, and are probably due to excess of function, and to the irritating character of the excretion. Atrophy of the pancreas has been observed. Dilatation of the stomach with hypertrophy of the muscular coat, when it occurs, is probably due to polyphagia.

Hereditary influence must be a very unimportant factor, if we are to judge from the small number of cases adduced in support of it. I am cognizant of the case of a man, at present suffering from diabetes, whose son, a boy of 7, died a few years ago from this cause. Griesinger's analysis of 225 cases would seem to show that intermittent fever, gout, rheumatism, typhoid fever, pleurisy, scarlet fever, etc., may be probable causes. I am disposed to believe that psychical causes, and particularly worry and mental depression, may exert an exciting influence in an organism predisposed to it.

A short time ago, a young man was admitted to the Western Pennsylvania Hospital. He was suffering from diabetes, which ran a rapid course, terminating fatally in less than a year from the time of its supposed commencement. No reasonable cause could be assigned for the disease, but after his death we learned that he had been engaged to a young lady whose mother refused her consent to the marriage. He became melancholy, morbid and depressed, gave up his work, began to fail physically, and was admitted to the hospital in the condition stated. You are not to infer from this that every young man who fails to marry the object of his affections, will develop a diabetes. Our patient, as you already know, contracted a gonorrhœa about eighteen months ago; he has confessed to me that he suffered terribly, both in mind and body, from this cause, and that he was in terrible fear lest his wife should find him out; he attributes his present condition entirely to this cause. You are not to infer from this that every married man who contracts a gonorrhœa, and suffers from worry and mental depression in consequence, is going to have diabetes. In our ignorance we explain this by saying that these two individuals were *predisposed* to diabetes, and only required an exciting cause to stimulate into action the pathological work which forged the first link in the pathological chain, glycæmia. This morbid predisposition, we suppose, exists in the sympathetic nervous system. You may not consider this very valuable or practical information, but it is the best I can furnish you regarding the causation of diabetes.

I have said nothing of cephalic traumatisms, for the reason that they pertain to the etiology of glycosuria rather than of diabetes; the same remark is applicable to the ingestion of amylaceous foods in excess, to the poisons, curare and strychnia, and to chloroform.

When the famous experiments of Claude Bernard demonstrating the fact of hepatic glycosuria were given to the world, his conclusions were soon made the basis of a new theory of diabetes. But the clinic showed diabetes present with a liver perfectly healthy, and diabetes absent with livers variously diseased. You remember that at our last clinic, I tapped an ascites which was due to atrophic cirrhosis. That man has never had a symptom of diabetes. In addition to these clinical facts, the sixty-four autopsies of Griesinger show us the liver very often normal, sometimes atrophied, and very rarely congested or hypertrophied. Thus you see that pathological anatomy furnishes important evidence against the hepatic theory of diabetes. In addition, Prof. Schiff and others demonstrated the reality of the fact advanced by Pavy, that the production of sugar in the liver is a post-mortem phenomenon; that in a physiological condition, the liver does not make sugar. It fixes and contains glycogen, but the transformation of glycogen into sugar is a pathological or cadaveric phenomenon.

We now come to the most unsatisfactory part of our subject, the treatment. In the first phase of the disease, when the patient is making his sugar at the expense of the starchy foods, the treatment is to be dietetic and hygienic; benefit will be obtained by excluding the starchy, and the employment, to the greatest extent compatible with good digestion, of the nitrogenous foods. Rest, recreation and judicious bodily exercise must be enjoined also. But if he is making his sugar at the expense of the nitrogenous foods, or at the expense of his own organism, dietetic and hygienic measures will be as useless as drugs.

With the exception of pulmonary caverns, our patient presents absolutely none of the secondary symptoms which I have described to you, and you might be led to believe from this, that his case was still amenable to treatment. The absence of all these symptoms is not unusual; we are not dealing with a morbid species, but with an individual case, and, unfortunately, this particular patient is suffering from autophagia; he is making his sugar at the expense of his own organism. The prognosis is absolutely grave; nevertheless, we must not abandon him to death with-

out effort; we will submit him, as rigorously as is practicable, to a dietetic and hygienic regimen, we will endeavor with anodynes to relieve the suffering from insomnia, and we will employ the potassium bromide for this purpose. During the past two years, a preparation called *arsenite of bromine* has been highly recommended through the medical journals for its efficacy in the treatment of this disorder. It has received the endorsement of some of the leading physicians of the country; for this reason, we will give our patient the benefit of a trial of the drug, and I shall keep you advised of the progress of the case.

A word more, gentlemen, and I am done: When you go out into the world to practice your profession, you will probably write occasionally for the medical journals. Do not then, prematurely, report cases of diabetes, because if you do, you will probably report some cures, due to some peculiar method of treatment. These will likely be regarded by a majority of your readers as the result of mistakes in diagnosis, and you will be looked upon as incompetent observers. Observe your cases closely and patiently, and thoroughly investigate all the phenomena connected with them, before you decide upon giving your diagnosis, and the recommendation of a specific to the profession at large.

ORIGINAL ARTICLES.

PARALDEHYDE AND URETHAN.[1]

BY H. B. WILLIAMS, M.D.,

ASSISTANT PHYSICIAN ARKANSAS STATE LUNATIC ASYLUM.

Every day sees a new remedy come to the front as a candidate for favor in the medical world. Some of them prove to be of value, and take their proper place in the armamentarium of the skilful, thoughtful physician. I desire to call attention to two new hypnotics which are awakening interest among neurologists more particularly, and which have been used in the State Lunatic Asylum.

The first is *paraldehyde*, a methylic ether, an exceedingly volatile liquid, somewhat resembling the compound spirit of ether of the Pharmacopœia; it has a pungent, penetrating odor, and its taste resembles that of sulphuric ether. In regard to its chemistry, method of preparation, etc., I quote from a letter of Prof. C. O. Curtman, of St. Louis, to Dr. P. O. Hooper:

"Paraldehyde is the condensation product of ordinary aldehyde and hydrochloric acid, hence $(CH_3, CHO)_3$. It is formed by adding to pure aldehyde a small amount of hydrochloric acid, when the condensation takes place with evolution of heat. (With even a small amount of sulphuric acid, the reaction occurs with explosive violence.) The product is cooled by ice till it solidifies, is then pressed to free it from acid, etc., filtered off and finally distilled. It boils at 253.7° F. It dissolves in 8.3 parts of water at 55.4° F., less in hot water. Distilling with sulphuric acid reconverts it into ordinary aldehyde."

Dujardin-Beaumetz says of it: In strychnia poisoning, delirium tremens, and uræmic convulsions, paraldehyde is superior to chloral. Cervello says: Paraldehyde affects the cerebrum, the spinal cord and the bulbus, successively abolishing the reflexes, causing anæsthesia and sleep by anæmiating the brain and cord. It is eliminated by the lungs. It is not a cardiac poison.

I may add, that in no instance have I seen interference with respiration result from its administration. At the Lunatic Asylum, we have used the drug as a hypnotic to allay excitement, and to control epileptiform seizures in one instance. The results obtained have been very gratifying. It is administered in doses of from 30 to 75 minims. I, however, usually give ℥j. A single large dose acts better than frequently repeated small doses.

In simple insomnia, in ℥j doses, it has acted for me like a charm, while in mania accompanied by great excitement, the results have been almost uniformly satisfactory. When the solution is freshly prepared and is administered without more than momentary exposure to the atmosphere, sleep, in nine out of ten cases, has been produced in from three to fifteen minutes. In the few instances in which no effect followed its ingestion, it was repeated in one hour and the desired result produced. The sleep produced is sound, refreshing, and to all appearances natural; it lasts from three to eight hours, and in my experience has never been followed by nausea, headache, anorexia, constipation, or any symptom of deranged function.

In recurrent mania attended with great excitement, restlessness, and persistent insomnia, it has seemed to me to shorten the duration of the paroxysms. In such cases it was administered nightly and sometimes had to be repeated, but in no instance has a tolerance been established. In one case of acute illness, where the patient was much emaciated, very weak, wildly delirious, and suffered from persistent insomnia which chloral failed to relieve, a single dose (℥j) of paraldehyde produced a natural sleep of eight hours' duration, from which the patient awaked refreshed and improved. On the two succeeding nights he received the usual dose, and each time with like results. On the fourth night he slept soundly without a hypnotic of any kind, nor did he require one subsequently.

Again, in a woman, the victim of chronic mania, who was also in the last stages of pulmonary tuberculosis, paraldehyde produced sleep and quietude repeatedly and without untoward effect. I have used it but once to control the paroxysms of epilepsy. The history of that case is as follows: The patient, who has suffered from epilepsy for years, having two or three attacks weekly, suddenly had an increase in the number of paroxysms. For two days he had from one to three seizures hourly, and became totally demented. Potassium bromide in heroic doses had no influence over the seizures, while ℥j of paraldehyde caused a complete cessation in less than twenty minutes; this cessation was accompanied by a sound sleep of six hours' duration, from which the patient awakened improved in every respect.

In epileptic mania in which paroxysms of epilepsy were not numerous, I have used paraldehyde for its

[1] Read before the Medical Society of Arkansas, April, 1886.

calmative and hypnotic effects, and in only one instance did failure result. In that case the patient was taking f. e. ergot and potass. bromid. for the epilepsy. In several instances, I have awakened the patient within a half hour or an hour after the inges tion of the drug, and found he would talk sensibly, but as soon as he was left undisturbed, he relapsed again into sleep.

In a case of chronic mania in a man who has a lesion of the mitral valve, compensatory hypertrophy of the heart having taken place, the paraldehyde gave most excellent results. I would state parenthetically that chloral has frequently been administered in this case without ill effects. Sometimes chloral produces a state of intoxication which forces the patient to occupy the recumbent posture, but neither allays excitement nor produces sleep. In this class of cases paraldehyde is invaluable.

The method of administering paraldehyde is important. It can be given in mucilage, syrup or whiskey, preferably in whiskey. At the Lunatic Asylum we give one part paraldehyde in three of whiskey. No difference in the action of the drug is perceptible when mucilage or syrup is used as the menstruum, instead of whiskey. Whiskey disguises the taste and in a great measure conceals the exhalation of the drug on the breath. This exhalation, when not obviated by whiskey, is almost intolerable and continues for several hours. I have noticed it twelve hours after the ingestion of the drug.

Paraldehyde must be kept in glass or rubber stoppered bottles, and must be taken as soon as poured out; otherwise disappointment will follow its use.

That paraldehyde will supersede chloral I do not believe, but that it will rank as a good reliable hypnotic, particularly where chloral and opium are contraindicated by personal idiosyncrasies, I am confident.

Another fact: paraldehyde is not an analgesic, and in insomnia due to pain is worse than useless.

Now, a few words on urethan, another hypnotic which promises to be as valuable as paraldehyde.

Urethan puriss. (NH_2, CO_2 C_2 H_5) is the ethylic ether of corbaminic acid; comes in white crystals, odorless, easily soluble in water, and has a sweetish bitter taste. Its hypnotic value has been tried in cases of rheumatism, gout, catarrh, neuralgia, skin diseases with irritation, general restlessness and sleeplessness. As a rule, the results were excellent, no unpleasant after-effects having been caused in a single instance. Urethan is an analgesic, as is shown by its action in gout, rheumatism, etc. Its action is chiefly on the cerebrum, and it has no influence on the medulla oblongata or cord. No interference with the action of the kidneys or bowels has been noticed.

The dose of the drug is 15 grs. I have used it only in insomnia of mania, and have found sleep result uniformly after the ingestion of the above-named dose. As toxic symptoms have never as yet been produced by the drug, I can tell you nothing of them, nor of the amount necessary to produce them. I have seen sleep, apparently natural, as the only result of the administration of urethan. If the promises which urethan holds out are fulfilled, it will prove an addition of very great value to our materia medica.

SHORTENING, BY OPERATION, THE BONES OF THE LIMBS IN THE TREATMENT OF INJURIES COMPLICATED WITH EXTENSIVE DESTRUCTION OF THE SOFT PARTS.

BY WILLIAM D. HAMILTON, M.D.,
OF COLUMBUS, OHIO.

In the issue of THE JOURNAL of August 14, 1886, page 176, appears an abstract from the *Gazette Médicale de Paris*, under the above title. Dr. Martel, of St. Malo, saw a patient June 2, 1885, with severe compound fracture of the leg. Anteriorly was a large wound, whose extent was due to actual destruction rather than to retraction of the skin and subjacent tissues. On February 25, 1886, he made an oblique resection of both bones of the leg. On March 25 union had occurred; April 25 consolidation was complete. August 3 two ulcerated spots remained, which soon healed. The author is only cognizant of a single case like his own: that of Karl Loebker, who, in 1884, resected the radius and ulna in continuity. My own case was reported to the Central Ohio Medical Association on the first day of last April, the patient being presented at the time for examination. I first saw her with Dr. Lewis Hoover, of Grove City.

L. S., æt. 10, was caught by the sickle of a reaper July 16, 1885. Her left leg was almost cut in two at the junction of the lower and middle third. The lower fragment was bent at right angles to the upper one. An ugly lacerated wound had been inflicted. It was irregularly rectangular in shape, the greatest length being at right angles to the axis of the limb. It was 2¼ inches broad in the continuity of the leg, and 5 inches long. It included at least two-thirds of the circumference and involved the anterior and outer aspect. The soft parts in this area were extensively destroyed to the level of the deeper posterior layer of muscles. Both bones were comminuted in their whole diameter. The periosteum was denuded from the upper fragment of the tibia for three-fourths of an inch. Nearly everything lying in front of a plane passing posterior to both bones was destroyed for 2¼ inches in the continuity of the extremity.

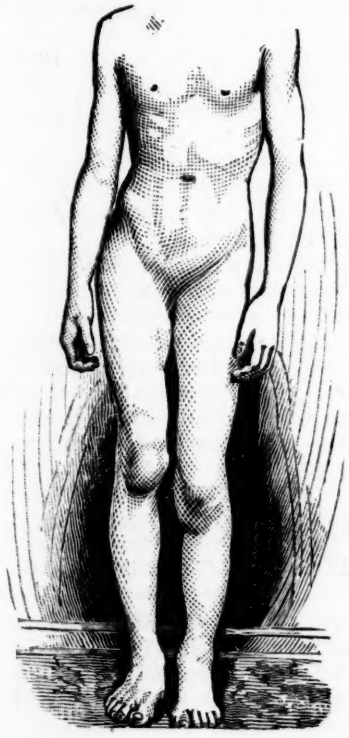
The wound was washed with a 1–3000 bichloride solution. To check the hæmorrhage, which was quite profuse, the divided ends of the anterior tibial artery were tied with gut. The periosteum was well retracted and a transverse, even division of the bones was made above and below the injury, and the intervening fragments were dislodged. It involved the removal of two inches of both tibia and fibula. Neat apposition was secured without wiring or suturing. Several layers of over and over gut stitching united the edges of the wound. A small opening was left in the lower angle for drainage. No tube was used. Thorough irrigation was followed by the use of iodoform gauze and other antiseptic absorbent dressings. A padded posterior splint with a bandage over-all, secured immobility. The temperature was normal, or nearly so, from the third day. There was no sloughing. On the 19th and 23d of July the dressings were changed. August 7 she sat

up and a plaster dressing was adapted. There was neither pain nor spasm during convalescence. Everything was taken off on October 19.

For several months the temperature of the limb was lowered. It had a dusky hue, its nutrition and innervation being seriously impaired. The complete division of the anterior blood-vessels and nerves left everything to be done by the posterior group. When first seen, mortification seemed imminent. The operation had two things in view:

1. To prevent gangrene and save the limb by inducing prompt union throughout; the idea being to remove bone which occupied the gap, and which, being the focus of inflammation and suppuration, threatened the posterior blood and nerve supply. 2. Or to anticipate a probable long siege of periostitis, ostitis, necrosis or osteo-myelitis.

The accompanying cut shows the patient thirteen months after the injury. Both heels are on the floor, which gives a clear conception of the postural deformity. The following measurements are further explanatory of the result:



	Left. (injured)	Right.
Circumference over cicatrix	7½ in.	
Length of cicatrix	4 "	
Distance from head of fibula to outer malleolus	10¼ "	12⅛
Distance from upper ext. of fibula to internal malleolus	10⅛ "	11½
Circumference of calves	8¾ "	10⅛

Dr. Martel is to be congratulated on his good result. His operation was a *secondary* procedure; *this* was *primary*. It would not pay to try to generalize with these three cases for a text. They may be sufficient to raise a question, however, as to the propriety of exsection in certain bad cases of compound fracture.

No. 126 E. Long St., Columbus, O., Sept. 9, 1886.

LAPAROTOMY FOR REMOVAL OF MONOCYST OF OVARY.[1]

BY T. W. HURLEY, M.D.,
OF BENTONVILLE, ARK.

I saw for the first time, and examined Mrs. H. in consultation with Dr. Hartly Weems, of Rogers, in October, 1885.

Patient æt. 36, married nineteen years; no children, no abortions; physical condition fairly good; has had an abdominal tumor for very nearly two years. No cachexia. A tumor of considerable size was felt in the abdomen, reaching about six inches above the pubis, and mainly in left side. Bimanual exploration gave but little pain.

The character of the tumor was explained to the patient, and she was told that nothing short of an operation would afford any permanent relief. As the disease progressed it became more and more painful, and we were frequently importuned to operate. A puncture was spoken of, but the patient, on being told that the procedure would in all probability be only palliative, insisted on a radical operation. An operation was determined on and the patient put on preparatory treatment, mainly tonic and hygienic. Drs. Welch and Gray, of Fayetteville, were requested to meet us in consultation on January 18, 1886. After careful examination and consultation an operation—ovariotomy—was concurred in, and 10 A.M. the next day the time for the operation.

Ten o'clock A.M., January 19. The patient, seeming cheerful and in good condition, was placed upon the table, and Drs. Gray and Weems administered a mixture of chloroform and ether. The patient was one of the most difficult to bring under its influence, requiring an hour and fifteen minutes to properly anæsthetize her.

Assisted by Dr. Welch, abdominal section in the median line was made, and a large monocyst which had developed from the left ovary was exposed. The cyst was partially evacuated, drawn out as nearly as possible and cut off. There was no pedicle, and very little adhesion. The intra-abdominal wound was well constricted by silk suture with several threads, and left in the abdomen. The external wound was closed and dressed antiseptically. The toilet being completed, the patient was carefully taken from the table and placed upon the bed. The patient, at this time having returned to consciousness, did not seem to be in an unfavorable condition; but in about half an hour was observed by Dr. Welch to be in an alarming state—extreme pallor, cold surface, frequent pulse, and feeble respiration. In addition she showed a marked and unceasing restlessness, to which succeeded vomiting and painful eructations. These symptoms, with but one short respite—when the temperature rose to about 100°, and soon falling below 96°—presaging a fatal issue, which finally occurred from total collapse at 8 o'clock P.M. the 20th, about thirty hours from completion of the operation.

I think I may say now that the difficulties and

[1] Read before the State Medical Society of Arkansas, Eleventh Annual Session, April 28, 1886.

dangers in this case were largely due to the very extensive origin of the growth, there being no well-defined pedicle, and consequently a very extensive ligation of tissue. It is true that this should not ordinarily produce a disastrous result, and I have the report of a case in which a rapidly growing ovarian tumor—only having been noticed by the patient six weeks—in which the operation was prolonged from numerous adhesions and the bursting of a cyst, the pedicle broad, which was ligated *in sections* with shoemaker's thread, and yet the patient did well. I think that the very profound and almost immediately fatal shock, together with bad toleration of the anæsthetics used, the effects of which persisted to the last, were the chief factors in the fatal termination of this case.

That an operation was justifiable there can be no doubt, as the patient repeatedly solicited it, and no other procedure could have with any certainty given a hope of prolonged life. And I may say the above opinions are fully concurred in by Drs. Welch and Gray, to whom Dr. Weems and myself are under many obligations for the valuable assistance rendered in the case.

PERMANGANATE OF POTASH IN THE TREATMENT OF ECZEMA.[1]

BY W. B. LAWRENCE, M.D.,
OF BATESVILLE, ARK.

In the *Medical and Surgical Reporter*, of July 11, 1885, I read the following in regard to "Permanganate Potash Baths:"

"In June, 1879, a well-developed child, of two years of age, was brought to Dr. Hüllman *(Archiv. für Kinderheilk*, Band vi, Heft 3), covered with eczema and impetigo. He had been sent from Berlin to Halle to try the baths there, but after three weeks he was worse instead of better. He was therefore prescribed an immersion-bath of permanganate of potash of the strength of fifteen grains to a pail of water, the child to remain in it until the fluid began to turn brownish. Fourteen days afterwards he was cured. Since then Dr. Hüllman has used the remedy both in adults and in children, and mostly with good effect. He has not confined its use to eczema, but has also employed it in prurigo, intertrigo, and the desquamating stage of measles, scarlatina and varicella. When the skin is much covered with scales or scabs it should first be well brushed with soap and water. For convenience of use he keeps a concentrated solution made of hot water."

At the time I saw this short article I had under treatment a very stubborn case of chronic eczema. I say chronic, because it was of almost three months' duration. It covered nearly the entire surface of all the fingers on one hand. The patient, a married lady, and in perfect health otherwise, had a hereditary predisposition to eczema. I had about exhausted all of the remedies generally used in this disease, so far as my knowledge goes. I had prescribed the tar ointment, citrine ointment, and others, besides nitric acid, with which I have cured similar cases heretofore; and in addition to the local remedies the patient had been taking liq. pot. arsenitis, 6 to 8 drops after each meal.

Under this treatment my patient's malady did not improve in the least, but gradually grew worse. Anxious to try anything reasonable, and remembering the good effects claimed for this drug in the treatment of some forms of foul ulcers, I ordered the following:

℞ Potassii permanganas..... grs. x
Aquæ..... ℥ j

The solution to be applied freely daily with a camel's-hair brush. Under this treatment the disease entirely disappeared in about twelve days. Of course the new skin remained somewhat tender for some days. She left off the arsenic when she began the potash.

I think it was in September that I treated another case of eczema. The patient was a young lady, and in other respects her health was perfect; no hereditary tendency, so far as I was able to find out, of any form of skin disease. The disease was on the face, in the region of the mouth, in fact almost covering both lips. She had used iodine and carbolized cosmoline, but with no good effect. I ordered

Pot. permangs..... grs. v
Aquæ..... ℥ j

The solution to be applied freely daily with a camel's-hair brush. Under this treatment the patient was cured within fifteen days.

In December I saw another case. The patient, a child one year of age, a male, well developed, and with the exception of this skin disease in perfect health. The disease was situated in the external ear and extended to some little extent down on the jaw. I ordered same formula as last, to be applied in the same manner as in the two previous cases, and within a week's time the disease had entirely disappeared.

[1] Read before the State Medical Society of Arkansas, Eleventh Annual Session, Little Rock, April 28 and 29, 1886.

NARCEINE IN WHOOPING-COUGH.[1]

BY LLEWELLYN ELIOT, M.D.,
OF WASHINGTON, D. C.

Whooping-cough is one of the most distressing diseases of childhood, although it has been observed in adults. It seldom occurs before the sixth month of life, nor is it frequent after the eighth year. Second attacks are exceedingly rare. Barthez and Rilliet mention a case occurring on the day after birth, the mother having had the disease four weeks previously. Bouchet mentions a case infected on the second day of life, developing on the eighth. Keating records a case of a child born with the disease. Steiner has seen it between the second and third weeks.

The pathology of the disease is unsettled, but it appears to be a catarrh of the respiratory organs, combined with an affection of the respiratory nerves, rather than a pure neurosis. This unsettled pathology has led to the employment of remedies without

[1] Read before the Medical Society of the District of Columbia, December 8, 1886.

number. Among them may be mentioned hydrocyanic acid, potassium bromide, ammonium bromide, hyoscyamus, digitalis, alum, lobelia, ipecac, potassium bicarbonate, belladonna, atropine, opium, morphine, musk, sodium et aurum chloride, cocaine, tartar emetic, insufflation and inhalation of quinine. Success and failure have followed the use of each.

In the *Medical Record*, of July 17, 1886, is an editorial on the treatment of whooping-cough, and among the remedies mentioned is narceine. This alkaloid was introduced as a remedy for this disease by Laborde, as far back as 1869, but the physicians of Philadelphia who employed it about ten years ago failed to obtain the results which were claimed for it. The recent visitation of the disease has afforded me a peculiar experience.

It was my intention to thoroughly test this treatment; my reasons for not doing so will be seen from what follows. On July 12, W., born July 3, showed symptoms of whooping-cough, his mother having contracted the disease five days before his birth. He was given on the 19th the following prescription, other remedies having failed to afford relief:

℞. Narceine..... 0.133 gm. (gr. ij).
Aq. destillat..... 8 c.c. (℥ij).
Syr. acaciæ..... 40 c.c. (℥x). M.
Sig. Teaspoonful every three hours.

This would make the dose .0110 gm. (gr. 1/6) the minimum, but to insure safety only 1/4 of a teaspoonful was given three times a day. Following the second dose there was a decrease in the quantity of urine; the dose was then lessened to 5 drops with the following results: entire suppression of urine, great drowsiness, refusal to nurse, constipated condition of the bowels and great restlessness. The urine not being voided from 4 in the evening till 6 in the following evening, he was given .0016 gm. (1/60) podophyllin every three hours until the bowels were freely moved; 5 drops of spirits of nitre every two hours, and hot poultices to encircle the entire abdomen. This continued until 12:30, when the bowels were acted upon freely and the urine voided; at 8 he again passed urine; the nitre was then continued at four-hour intervals. The whooping-cough was not benefited in the least. Possibly, had the narceine been continued, the effect might have been different, but with such a state of affairs as here presented I could not have the hardihood to do anything which would tend to increase the unfavorable outlook.

This is one experience with narceine. The dose may have been too large, .0025 gm. (gr. 1/24), if so, the condition should have altered when it was lessened. I have no intention of doubting the results obtained by other observers, nor of questioning the reports made concerning the use of "Narceine in Whooping-cough," but I cannot refrain from making known the unfavorable result which followed at my hands. After the effects of the narceine wore away, the child did as well as one so young could be expected upon alum and syrup of wild ginger, to finally have violent convulsions and die on August 2.

510 E. St. N. W., Dec. 8, 1886.

HOSPITAL REPORTS.

MYOFIBROMA UTERI.

CLINIC OF PROF. ROKITANSKY, OF VIENNA.

[Reported by HORATIO R. BIGELOW, M.D.]

G. H., 48 years old, married fourteen years. For over one year has had the menses every fortnight, but not very abundantly. Has had four difficult labors, the last one ten years ago. Three weeks ago had a strong hæmorrhage. On the right side of the abdomen there is an ulcer. She is anæmic, small and thin. The lower half of the abdomen is vaulted out by a solid, elastic, circumscribed, movable tumor, not painful, the walls of which are flat and extending out of the pelvis. Vagina of normal length. The vaginal portion of the uterus is long and broad. The anterior lip is thickened. The posterior lip is flat and thin. Bi-lateral cervical laceration. The interior surface of the anterior lip is soft and swollen; bleeds easily. Through the anterior vaginal roof the enlarged fundus can be detected easily. Circumference around abdomen, four fingers width under navel, 80 ctm.; uterus 27 ctm.

On account of violent hæmorrhage she was at once received into the hospital, but was soon after discharged, as the bleeding stopped and as she did not wish to be operated upon. On November 18, 1885, the patient returned to the hospital. After she left the hospital the hæmorrhage returned, and was profuse for five days. Since this time the patient complains of violent pains throughout the abdomen. Examination *per vaginam* shows a soft, œdematous vaginal portion, and the tumor is more painful than formerly. The bladder is distorted toward the right side, and has a peculiar form. On the right side the probe passes easily up in a vertical direction over the anterior superior oss. il. to a level with the navel; on the left side the probe was only about 3 ctm. over the sym. pubes, and through the uterine walls could be felt in the linea alba. On November 21 the patient complained of violent pains in the right side. There was a painful spot over the ninth and tenth ribs, but she had no other signs of pleuritis.

On November 23 the pains ceased entirely, but the patient was unable to lie on the right side. Early on this morning the patient took a hip bath, then the mons veneris was shaved, and the patient had another bath. The abdominal parietes were covered with a linen cloth, moistened in a two per cent. carbolic solution, which was left *in situ* 20 hours. Temperature 37° (R), pulse 100.

On November 20 temp. 37°, pulse 105. Carbolized sitz bath.

Operation.—Chloroform. The primary incision, made with great care to avoid wounding the bladder, extended from the navel to within 3–4 ctm. of the sym. pubes. Parietal adipose 2 ctm. thick. Arteries caught with forceps. When the tumor was disclosed it was found to be smooth, and not adherent to the anterior uterine wall. The incision was found to be too short for its enucleation, so it was extended to a total length of 25 ctm. In the peritoneum was a

little ascetic fluid. As the tumor extended so deeply into the pelvis it could only be partially enucleated, the adhesions having been separated. The bladder was adherent to the tumor and was distorted, as already described. The peritoneum for about 3 ctm. was separated from the floor of the bladder by the Paquelin cautery, and the bladder freed. The broad ligament was ligatured with silk in three parts, and divided between with the Paquelin. The tumor was drawn out as far as possible, and at the height of the cervix was ligatured with the elastic tubing. The anterior uterine wall was now incised in a medial line, from the fundus to the ligature, and the tumor enucleated down to the ligature. It was found that this intra-mural fibroid extended down to the anterior cervical lip. All above the ligature being removed with the knife, the upper angle of the fundus was provisionally sewed up, and the wounded edges of the uterus were seized with hæmostatic pincettes. Under the elastic ligature a Chaunenac chain was thrown, and the rest of the tumor was enucleated. Drainage *per vaginam*, by means of a thick trocar with a drainage tube drawn after it. The elastic tubing was now entirely removed, and after trying in vain to apply the chain, which tore through, a thicker and permanent elastic tubing was applied, and the uterus amputated. The stump was transfixed with two long straight needles and secured in the lower angle of the wound (extra-peritoneally). Rapid peritoneal toilette. Sublimate silk ligatures used. Duration of operation, two hours. Iodoform powder and iodoform gauze and sticking plaster were used in external dressing.

The stump was painted every day with a concentrated solution of ferr. sesquichl. A one per cent. sublimate irrigation was used in the vagina for several days. For the first few days the urine contained a considerable quantity of phenal. Vagina then packed with iodoform gauze. On the ninth day the stump was cut off with scissors, the cavity cleansed and treated with iodoform. On January 3, 1886, forty-seven days after the operation, patient was discharged as cured.

MEDICAL PROGRESS.

LEPROSY.—The Hawaiian Legislature, in its determined efforts to try to control the spread of leprosy in the islands, was fortunate in securing the valuable services of DR. EDWARD ARNING for purposes of special research. He found the bacillus lepræ plentifully in all nodules and diffuse swellings of the tuberculated cases and in similar lesions of the mucous membrane of the mouth, throat, nose, rectum, and large intestine, and in the discharges from the ulcerated lesions. He recognizes a diarrhœa arising from the leprous ulceration of the bowels closely simulating a true dysentery, and thinks that the deaths usually ascribed to intercurrent pneumonia, tubercular phthisis, and dysentery should be more correctly ascribed to breaking down of leprous infiltrations of the lungs and bowels. He failed to find the bacilli in the early bright red patches of vaso-motor congestion due to nerve lesions, in the anæsthetic patches of the so called "anæsthetic cases," and in the chronic sores of necrotic parts of skin tissue and bone, but they were present in the nerves supplying the mutilated parts. There were none in the urine and none in the blood, nor could he discover by culture or otherwise the existence of any spores in the latter fluid. All attempts to obtain an independent and pure growth of the bacillus lepræ failed, nor were inoculations of animals of various ages in different parts of the body succeeded by a general infection. Arning inoculated a condemned criminal, but fourteen months later no definite results had followed, though a few bacilli could still be detected in the scar. Lastly, he demonstrated a vitality persisting over several months of the bacillus lepræ in putrefying tissues. On the clinical side, researches in electro diagnosis convinced him that the anæsthesia and paralysis are due to leprous disease of peripheral nerves, but he does not regard the muscular crippling as so characteristic of the disease as the bone affections. Coming to therapeutics, we notice that Arning administered iodide of potassium without any good effect, also hyposulphite of soda, creasote, carbolic acid, and arsenious acid; and with some good effect salicylic acid and hypodermic injections of corrosive sublimate. He observed the efficiency of electrical treatment in anæsthetic cases, and insists on the value of salicylic acid in a 10 per cent. paste or ointment or solution in oleic acid, and also of pyrogallic acid in a 10 per cent. ointment or strong solution in traumaticine. Arning declares that, for one reason or another, he found it impossible to obtain from questioning the natives reliable statistics on which to base proofs for the hereditary or congenital transmission of leprosy; but we note from other reports that amongst the cases of advanced leprosy at Molokai sterility is almost universal, and the majority of the offspring, where either one or both parents are diseased, have been still-born or have died within a short period after birth, and of those who have survived many have not yet developed leprosy. No congenital cases have been observed, but Arning saw two well-marked lepers aged respectively 3½ and 4 years. Dr. Mouritz points out that, whilst it is perfectly true that healthy people may live with tuberculated lepers for years without contracting the disease, many on the other hand do not escape, and he especially refers to the remarkable percentage of the non-leprous assistants, or kokuas, on the settlement who contract the disease. Of 178 kokuas, 17 developed leprosy between February 1885 and 1886.—*Lancet*, Dec. 4, 1886.

SARCOMA AND CARCINOMA OF THE BREAST.—In a lecture on this subject TILLAUX gives the following as the differential diagnosis between these affections:

The course of sarcoma is much more slow than that of carcinoma, and may extend over twenty-five years.

Confirmed sarcoma is uneven and rough, and the indentations are larger than those of carcinoma. Sarcoma is not adherent to the thorax, while carci-

noma is. Sarcoma may attain an enormous size—as much as 12 or 15 pounds.

In carcinoma the skin rapidly becomes adherent (orange skin); adhesion is late in sarcoma.

There is retraction of the skin in carcinoma (*peau capitonnée*); in sarcoma the skin is distended.

The skin in sarcoma is glistening, shiny and purplish; in carcinoma there are white and lactescent lines.

In carcinoma the nipple is markedly retracted; in sarcoma it stands out so that its form is easily made out by running the hand over the skin.

Both diseases tend to ulceration: in carcinoma the skin melts away; the edges of the ulcer are hard and continuous with the wound. In sarcoma, on the contrary, it recedes from the distension exerted on the inner face by the sarcomatous nodules; the borders are thin, soft and free. The ulceration of carcinoma may be compared to that of hard chancre, and that of sarcoma to that of chancroid.

In carcinoma the consistence is firm, and often hard and sensibly uniform. In sarcoma it is less firm; and there may be soft spots due to cysts.

Carcinoma fuses rapidly with the mammary gland; sarcoma always remains distinct.

Carcinoma quickly adheres to the subjacent tissues, particularly to the pectoralis major muscle; sarcoma glides over the subjacent tissues almost to the end of the disease.

The lymphatic system is invaded almost at the beginning of carcinoma; Sarcoma almost never attacks the lymphatics.

Carcinoma returns much more fatally than sarcoma; it returns at a distance from the original seat; sarcoma returns in the same place.

In carcinoma cachexia is rapid; sarcoma almost always remains localized.

Carcinoma is painful; sarcoma is indolent.

In operating in either case cut around the tumor into sound tissue, and try to obtain immediate union. *Gazette de Gynécologie*, October 15, 1886.

Urea and its Relation to Certain Morbid Conditions.—The question whether urea is furnished equally by all the albuminous constituents of the body, or whether it only represents the decomposition of one particular tissue or organ, has long been a puzzle to physiologists. The exclusive view, however, which regarded urea as derived only from one source, such as from the excess of nitrogenous food taken into the system but not employed, or from disintegration of muscular tissue, or from nitrogenous metabolism taking place in the liver, have given place to wider ones, and most physiologists are now disposed to admit that the sum total of urea eliminated in the twenty-four hours is derived from many sources. Such a belief would enable us to account for many anomalous circumstances attending on urea excretion in disease. Among the many possible sources of urea formation, Dr. Noel Paton (*Journal of Anatomy and Physiology*), has recently drawn attention to the destruction of blood-corpuscles in the liver, under the agency of certain hæmolytic agents, as leading to the increased discharge of urea and urinary pigment. Indeed, these researches have led Dr. Locke, in the *Practitioner* of September, 1886, to explain the diuretic action of mercury as exhibted by the action of the preparation known as "Guy's" pill. Dr. Oliver, of Newcastle-on-Tyne, has recently considered the subject from its clinical side, and has arrived at she same conclusion that Dr. Noel Paton has from the experimental—viz., that the destruction of blood-corpuscles forms an important source of urea; and he has shown that in diseased conditions in which chronic anæmia was present the daily discharge of urea was small, but that where the anæmia was quickly progressive the disappearance of blood-cells was always followed by a marked rise in the daily discharge of urea. Also in a paper on "Functional Albuminuria" communicated to the *Lancet*, Oct. 23, 1886, Dr. Ralfe observes that the albuminous element of the blood-corpuscles brought to the liver under ordinary circumstances, no doubt undergoes transformation into urea; but that when the destruction is considerable, and the process takes place suddenly, probably, whilst there is a decided increase in the formation of urea, a large proportion of this effete albumen is at once got rid of by the kidneys, giving rise to what is known as functional albuminuria. In a more severe form, however, the number of blood-corpuscles destroyed is so great that the conversion of all the effete hæmoglobin into bilirubin cannot be effected, so that a portion of the undestroyed hæmoglobin appears in the urine. In this manner Dr. Ralfe explains the relationship that exists between certain forms of albuminuria and hæmoglobinuria, and the increase of urea elimination that occurs in them. As we have already stated, the belief in the multiple sources of urea enables us to explain many anomalous circumstances attending urea excretion in disease. Thus, for instance, in phthisis with rapid wasting of tissue we should naturally expect a considerable increase of urea elimination if urea were solely derived from tissue metabolism, but no such increase can be definitely established, even when high temperature exists; and Dr. Oliver has shown, from the observation of numerous cases, that when the ureal excretion in phthisis is augmented it is always accompanied by distinct evidence of the increase of the anæmia.—*Lancet*, Dec. 4, 1886.

Reducing Dislocations of the Fingers.—Dr. J. W. Macfarlane, of Philadelphia, says: While demonstrating to a class on minor surgery the appliances used to reduce dislocations of the fingers, some difficulty was experienced in keeping Levis's instrument in position, even with a wet bandage applied to the part. Having of late been obliged to wear some of the gum finger-stalls of the shops, to avoid poisoning in a cut, and recognizing how they adhered when once in position, the idea suggested itself that one of these would be an excellent covering for the finger, over which Levis's instrument or a clove-hitch could be secured if desired.

A close fitting gum finger-stall was then applied, and, upon grasping with the right hand the finger so covered, we found that we had such a power and perfect control that further appliances were unneces-

sary—slipping being out of the question with a finger so covered, especially if the operator's hand is warm.

This simple suggestion may, perhaps, not have the merit of originality, although I have never come across it before; but it seems to me that much more accurate and judicious traction can be made when the dislocated finger is in the firm grasp of the fingers of the right hand, while the thumb of the right and the whole of the left hand are free to manipulate with, than in the customary method of procedure. Or, if desired, the gum finger-stall can be used as a fixation-point for Levis's instrument or the application of a clove-hitch.—*Philadelphia Medical Times*, Jan. 8, 1886.

TREATMENT OF CONSTIPATION WITH UTERINE DISEASE.—The *Gazette de Gynécologie*, of Oct. 15, 1886, gives the following as useful formulæ for the treatment of constipation associated with uterine disease:

In cases of intestinal paresis, with faulty secretion of the intestinal mucosa:

Extract of physostigma.....
Extract of belladonna.....
Extract of nux vomica.....aa 30 centig.
Make 12 pills, one to be taken on rising from bed.

In cases of hæmorrhoids the constipation may be advantageously treated by administering 10 to 30 grm. of the following:

Sulphur, washed and sublimed..... 50 grm.
Pulverized senna..... 20 "
Essence of citron..... 0.30 centig.
Simple Syrup..... Q.S.

M. Huchard frequently uses the following:

English magnesia..... 25 grm.
Cream of tartar..... 13 "
Bicarb. soda..... 2 "
Oleo-saccharate of anise..... 1 "
Make 40 powders. One at the beginning of each meal.

Podophyllin.....
Extract of hyoscyamus.....
Medicinal soap.....aa 30 centig.
Make 10 pills. One or two at bed time.

Tincture of rhubarb..... 10 grm.
Tincture of nux vomica..... 6 grm.
Tincture of badian (Illicium anisatum).. 4 grm.
Ten drops in a little water 5 or 10 minutes before meals.

Cascara sagrada may be used either in the form of the powder or the tincture. Should it cause colic it may be administered by the following formula:

Powder of cascara..... 0.25 centig.
Extract of belladonna..... 0.01 "
Powder of lycopodium..... 0.10 "

In any case treatment should be continued for several weeks, or until the desired result is obtained.

HYDRASTIS CANADENSIS.—DR. WOLTERING, of Münster, confirms, in a paper published in the *Allgemeine Medicinische Central Zeitung*, No. 47, 1886, the favorable results obtained with hydrastis canadensis by Fellner and other therapeutists of note.

The styptic virtues of the drug, especially in uterine fibromyomata, are very pronounced. Thus, Woltering saw cessation of the hæmorrhages in three cases of fibromyoma with a uterus-length of 9 and 8 ctm. In one of the cases the uterus-length had at the end of one year decreased 2 ctm. True, besides the drug, the patient had had the benefit of long-continued self-tamponage and warm washes. The remedy was ordered in pill form on account of its unpleasant taste. Ten grammes of the fluid extract can conveniently be evaporated down to about three grammes of a dry extract, furnishing an excellent pill mass. Woltering orders usually as follows:

℞ Extr. hydras. canad. sicci..... .. 6.00.
(To be prepared from fluid extr..... 20.00).
Extr. secal. corn.,
Ferri. redacti,.....aa 3.00. M.
F. fil., No. 120.
S.—Two to 5 pills every three to four hours.

Of course morphine, aloes, or any other indicated remedy could be incorporated with this styptic. The above pills are taken readily and well borne, especially when taken during or after the meal. Woltering claims that neither wine, aromatics, nor liquorice cover the taste of hydrastis canadensis sufficiently.

In simple hæmorrhagic endometritis the remedy renders also excellent service. In profuse bleeding from the lungs and stomach, however, a teaspoonful of oil of turpentine appears to be preferable.—*Therapeutic Gazette*, December 15, 1886.

LANOLIN MERCURIAL OINTMENT.—DR. BERNARD BRANDIS, of Aachen, in his work, "Principles of the Treatment of Syphilis," writes as follows: "I must also mention the mercurial ointment brought forward by Professor O. Liebreich, of which lanolin forms the basis. It is thus prepared: 100 parts of mercury, 25 of lanolin, and 5 of (grey) mercury-ointment are rubbed together thoroughly till all the mercury disappears, which very quickly happens, and then mixed with 50 parts of mutton-suet, to which, in the melted condition, 175 parts of lanolin have been previously added. An elegant and smooth preparation results, without any disagreeable odor, and the trials of it here mentioned speak most emphatically in its favor. Those who use it upon patients boast of the ease with which it is "rubbed dry," and we may presume that the mercury is rapidly taken up by the skin."—*London Medical Record*, Nov. 15, 1886.

RUPTURE OF BLADDER CLOSED BY SUTURE.—DR. GARRÈ reports the case of a young man whose bladder was ruptured. Petarseris colporynteur was inserted into the rectum and a median longitudinal incision made over the pubes. The peritoneum was uninjured, but there was a vertical tear 2–3 cm. long in the anterior vesical wall. Its edges were stitched to those of the external wound, thus forming a urinary fistula, which was healed in five weeks.

Rupture of the bladder with fracture of the pelvis, says Garrè, can only occur when the abdomen is full and the parietal muscles passive. The fact that the bladder contains a considerable amount of urine shows that the rupture is in the anterior wall, for if the posterior wall be torn the urine will most probably escape from the bladder.—*Centralbl. für Chirurgie*, Nov. 7, 1886.

THE
Journal of the American Medical Association.
PUBLISHED WEEKLY.

THE EDITOR OF THIS JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information should be accompanied by the writer's full name and address, although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

SUBSCRIPTION PRICE, INCLUDING POSTAGE.

PER ANNUM, IN ADVANCE.....$5.00
SINGLE COPIES.....10 CENTS.

Subscriptions may begin at any time. The safest mode of remittance is by bank check or postal money order, drawn to the order of the undersigned. When neither is accessible, remittances may be made at the risk of the publishers, by forwarding in REGISTERED letters.

Address
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No. 65 RANDOLPH STREET,
CHICAGO, ILLINOIS.

SATURDAY, JANUARY 22, 1887.

OBSTACLES TO THE FORMATION OF PERMANENT COUNTY MEDICAL SOCIETIES.

In THE JOURNAL of last week, we called attention to the necessity for more complete and universal organization of the profession, in all its departments, into County or small District Societies, as the basis of efficient and truly representative State and National organizations. It was further stated that we have already such societies in nearly every county of some States, in a majority of others, and in only a few of the remainder; but that in all those existing, there is need of having the active membership embrace more nearly all the regular members of the profession within their limits, and still more need for the prompt formation of new societies in all the counties where none now exist. Experience has shown the existence of three chief obstacles in the way of the complete voluntary organization of the profession in a country embracing so vast a territory as ours. The first is the lack of appreciation of the advantages to be derived from such organization, on the part of a large class of practitioners. Without due consideration they let the comparatively trifling expense and time required for attending a County Medical Society, once or twice a year, deter them from making any movement in the matter. This class, though numerous, only require to have the real advantages of active membership in such medical associations fairly brought to their attention, to secure their coöperation. The members of every learned profession need some method by which its working members are, at stated intervals, brought in contact with each other and more or less before the public. This is secured for the clerical profession by the stated meetings of their conferences, synods, conventions, etc., and their weekly ministrations before the public. The same end is obtained substantially for the members of the legal profession by their frequent contact and open intellectual encounters at the bar of the several courts. But, for the great mass of the members of the medical profession, the local organized and actively sustained medical society affords the only opportunity to meet one another on common ground, each contributing something to the common stock, and each mentally imbibing something of value to himself and his patients, while the emulation or ambition for closer study and higher attainments, is more or less excited in all. To the younger members of the profession especially, the opportunities of active society work are of inestimable value. He who embraces them with a fair degree of diligence rarely fails to advance in his attainments and reputation, while he who neglects them, soon loses his habits of study, early lapses into a mere routine practice and is seldom known beyond the limited circle of his patients.

The second obstacle consists in attempts to make the machinery of these organizations too complicated and therefore difficult of execution. Many a social organization has come to an early death through vain attempts to enforce the details of its elaborate and ingenious system of rules and regulations. The more simple and brief the constitution and by-laws of a local medical society can be made, having for their paramount object the mutual improvement of the membership, the more efficient and durable will they prove to be.

The third obstacle in the way of effecting and maintaining a general and harmonious organization of the profession is difficult to define, and still more difficult to remove. It seems to have its origin in the undue development of the selfish tendencies of the human mind, and may generally be recognized in one of the three following forms: It has not required fifty years of personal observation to find in every populous community one or more medical men who make large pretensions to education and professional skill, who are prominent in social clubs and places of amusement, but when asked to join the local or county medical society, promptly tell you to "go to the dogs with your medical society. Do you think I want to go there and listen to an essay from that young upstart Dr. C., who has not had half a dozen patients since he left college, or to hear old granny D. relate a case of hysterics?" This may be styled the *pompous* form. Still more easy is it to find members of the profession fairly well educated and

gentlemanly in their deportment, but whose ready answer to all solicitations for them to sustain any general organization of the profession of a county or State, is: "Oh! I do no general practice—attend only to ophthalmological or gynecological cases, and cannot possibly find time to attend any medical societies except those devoted to my own specialty." This may be called the form of *exclusiveness*, manifested by a large class who never lack time to attend to every paying case sent to them by the general practitioner, but who never think of devoting an hour to the interests of the profession as a whole; or if they do occasionally come in to a general meeting, it is sure to be improved in generously instructing the general practitioners how most readily to diagnosticate such cases of disease as should be sent to the *specialist* for treatment. In most of our large cities may be found a small group of most influential and for the most part really eminent men, some of whom occupy positions on the staffs of public hospitals or in the faculties of medical colleges, and others are earnestly engaged prosecuting scientific or literary work. As a rule, the members of this class give no attention whatever to the city or county organizations of the profession, and only at long intervals to those of the State or of the Nation. More than any other equal number of members of the profession are they capable of giving efficient support and scientific character to the medical organizations of all grades—County, State and National; yet, by their almost total neglect, they strongly influence many others to follow their example. If you solicit them for papers and personal attendance, the almost uniform reply is, that they either have no time, or they are so much worn out by their labors they must make a trip to the mountains or the sea-side, or more likely across the Atlantic, to restore their energies, and very likely look in upon some medical society meeting on the other side. The latter step has, indeed, been so frequent with some during the last two or three decades that their writings show them to be more familiar with the society work and medical literature of some of the countries of Europe than they are of their own.

Widely different as are the three groups we have just described, they all agree in practically ignoring all obligation to personally sacrifice either time or thought in establishing and maintaining such local, State and National Medical Associations as are necessary to advance the educational, scientific and practical interests of the whole profession.

ABSCESS OF THE PANCREAS.

If there be one well established principle of modern surgery it is that suppurating cavities must be treated by incision and drainage, wherever this cavity may be located. The great strides made in the surgery of suppuration of internal organs warrants us in saying that at no distant day abscesses of the pancreas will be treated on the same principles as abscesses elsewhere. "Asepsis and effective drainage," says Dr. Senn, in the valuable monograph to which we called attention in the last issue but one of THE JOURNAL, "are the two cardinal points upon which we have learned to depend in the treatment of abscesses in important organs or cavities. If we can secure and maintain these two essential conditions, we can attack with immunity and a fair hope of success, any abscess wherever it may be located, and whatever its immediate surroundings may be." As the case now stands surgical literature shows no case in which abscess of the pancreas has been treated surgically. One reason of this may be its rare occurrence; and another that there are many difficulties in the way of recognizing the condition. The difficulties will, however, be removed by improved methods of examination, and greater skill in operating.

In looking at the pathology of abscesses of the pancreas we, of course, must remember that suppuration here, as elsewhere, is only one of the terminations of inflammation, and that the abscess, like the inflammation, may occur primarily in the pancreatic gland itself, or it may begin in the para- or peripancreatic tissue. When endo-pancreatic, or in the gland, it "may be bounded and circumscribed by the proper investment of the gland; if, on the other hand, it commences primarily outside the gland it appears as a diffuse abscess, which extends to the pancreas by contiguity; in other words, we speak of the abscess as a suppurative pancreatitis, or a suppurative peri- or para-pancreatitis."

As there now seems to be no doubt as to the causative relation between pus microbes and suppuration, it must be taken for granted that suppurative pancreatitis, of whatever kind, is caused by the presence of these microbes in the tissues. The suppuration always begins in the interstitial tissue, either within the gland or in the connective tissue around it. Peri-pancreatic suppuration usually begins in the adjacent lymphatics; the pus surrounds the lymph glands or forms a small abscess. These peri-lymphatic abscesses are sometimes met with near the pancreas in pyæmia. The abscess may begin on the outer surface of the gland, and the pus separate the

gland from its attachments. Gendrin records a case in which it was lying loose in the abdominal cavity. In some cases the pus burrows in the region of the mesocolon and the retroperitoneal space, and may thence find its way into the peritoneal cavity or the alimentary canal. Again, a calculus in the pancreatic duct may be the indirect cause of an abscess; or one may originate in a preëxisting cyst, as in a case described by Kilgour. "As primary, idiopathic, uncomplicated, purulent inflammation of the pancreas is an exceedingly rare affection, it is of great practical importance in the surgical treatment of such cases to determine, if possible, the predisposing cause or causes, and to remove them, or render them inert at the time of the operation."

There are not always characteristic or positive symptoms of the presence of pus within the pancreas or in its immediate vicinity; in fact, the symptoms always point to the stomach or liver as the seat of disease. Nausea, vomiting of a clear greenish or viscid fluid, thirst, anorexia, constipation, progressive emaciation, and distension of the epigastrium are the more prominent and constant symptoms. In the recorded cases the patients as a rule, were very anæmic, and presented a sallow, cachectic appearance. In a number of cases ascites and œdema of the lower extremities were present; and in some cases there was biliary retention from extension of the inflammatory process to the bile-duct, or from stenosis of the bile-duct from compression. Fever is neither a conspicuous or a constant symptom of the condition. If the abscess be large palpation and deep percussion will show a tumor in the epigastric region. Inflammation of the stomach will often serve a useful purpose in the differential diagnosis of tumors in the epigastric region; and manual exploration of the rectum may give important or decisive information. Most of the recorded cases were in persons more than 40 years of age, and often of persons of intemperate habits. "In all cases where a tumor can be felt in the epigastric region, and a probable diagnosis can be made regarding its benign character, an exploratory laparotomy should be resorted to for the purpose of making an accurate anatomical diagnosis." This is important from a prognostic point of view, as the prognosis in abscess of the pancreas is always unfavorable. Progressive emaciation and inanition, or septic absorption, or secondary lesions in adjacent organs are usually sufficient to cause death. In cases of acute diffuse pancreatic abscess death may take place in a few days. A very great danger of these abscesses is the number of important veins in the immediate vicinity; these may become involved by extension of the suppurative process, leading to suppurative thrombophlebitis. The most favorable spontaneous termination of these cases is perforation of the abscess into the stomach or intestinal tract; and in one case this has resulted in cure. Perforation into the peritoneal cavity would of course hasten death by setting up a rapidly fatal septic peritonitis.

The treatment of pelvic and abdominal abscesses has been, and is now, so successful that the hope is justified that before very long the same treatment, and possibly the same success, will be extended to and gained in abscesses of the pancreas. It must be admitted, however, that there are greater difficulties in the way of operating in this region than in other portions of the abdominal cavity. "Multiple abscesses, disseminated throughout the entire organ, and especially its head, are not amenable to successful surgical treatment. Circumscribed endopancreatic abscess in the peripheral portion of the body or tail of the pancreas should be treated by partial excision of the pancreas in all cases where the isolation of that portion of the organ can be accomplished without inflicting serous injury to adjacent important organs. When extirpation is impossible, as when the abscess is located in the head of the organ, it must be treated by incision and drainage. This is accomplished in the same manner as in the treatment of a pancreatic cyst. In some instances the access is rendered difficult by distension of the stomach, the dilated organ overlapping the pancreas. In such cases the stomach must be pushed upward, and subsequent distension guarded against by ordering an absolute diet until the external fistula has been established. The external incision must, in all cases correspond to the most prominent part of the swelling, as it is of the greatest importance to incise the abscess at a point where the distance between the surface of the abscess and abdominal wall is the shortest. Incision of the great omentum will be required in all cases. In making an external fistula it is essential to protect the muscular and connective tissues of the external incision against contact with pus by lining the margins of the wound with the parietal peritoneum before the serous covering of the anterior wall of the abscess is stitched to the margins of the wound." A great difficulty in this operation will be the approximation of the peritoneal surface of the abscess with the margins of the wound; a difficulty which increases in proportion to the prominence of the swelling. The external incision should be large, as the margins of the wound can then be turned in, which facilitates suturing of

the anterior wall of the abscess to the margins of the wound. There is but little danger of puncturing the abscess-cavity with the needle, as the anterior wall of the abscess is generally covered by peritoneum and is of considerable thickness. Evacuation of the abscess by aspiration, before the operation, will cause recession of the abscess wall, and thus render approximation difficult; but it may be done if the swelling is so prominent as to render this a secondary matter. The sutures of the peritoneal surfaces should be of silk, should be placed close together, and grasp the tissues so that tearing out will be impossible; for the object of the sutures is to prevent escape of pus into the peritoneal cavity, and to secure permanent adhesions of the abscess wall to the margins of the wound. Incision and drainage should follow immediately upon the suturing.

"The remaining steps of the operation will depend upon circumstances. If the abscess is endopancreatic or peripancreatic, simple incision, drainage, and disinfection will answer all indications. If, however, the purulent cavity is located behind the peritoneum and occupies the connective tissue space behind the pancreas, it would appear rational to drain the abscess posteriorly through one of the lumbar regions above the kidney by pushing a long closed forceps in a proper direction through the posterior and lateral wall of the abscess until its point can be felt under the skin externally. A small cut in the skin over its point will enable the operator to push the instrument clear through, and, by dilating its blades, widen the canal sufficiently to permit the insertion of a large drainage tube. In this manner the most desirable method of drainage—through drainage—could be established, which would render subsequent disinfection and evacuation of the abscess a comparatively easy task. In cases where an anterior pancreatic fistula cannot be established on account of the distance between the abscess and the anterior abdominal wall, we might resort to lumbar drainage and closure of the incision in the anterior wall of the abscess by carefully inverting and approximating the peritoneum over the wound with fine silk sutures. The abscess found and located by abdominal section should be removed by partial extirpation of the pancreas when it is endopancreatic and located near the splenic end of the pancreas. When extirpation is impossible, or when it is located in the head or on the anterior surface of the pancreas, it should be treated by the formation of an anterior abnormal fistula; when located behind the pancreas, by through drainage, or lumbar drainage performed through the abdominal cavity."

"THE CHICAGO CINCHONA COMPANY; OFFICE, PALMER HOUSE."

We have received from a physician in a neighboring State a printed circular, marked by its author "private and confidential," setting forth the formation of a company by the above title, and with a capital stock of $500,000, for the purpose of manufacturing and selling "D'Unger's Cinchona Cure for Drunkenness." The company claims to have purchased the formula and all details of its preparation from Dr. D'Unger; and while setting forth in the usual style its virtues as "a certain cure for drunkenness and the morphine habit," this "private" circular shows the real nature of the speculation in the following paragraph:

"The capital of the company has been fixed at $500,000, the price of each share being $20. Of this sum, $250,000 has been placed by the former owner of the formula in the treasury, to be *allotted* to *such physicians* as may desire five or ten shares of it at *twenty-five* cents *on the dollar*." This offer is made to physicians *only*, and is rendered more tempting by the strong assurance that after the remedy is fairly introduced to the profession, it will yield "annual dividends of at least 25 per cent. to the stockholders." The circular is signed by E. S. S. Kemp, President, and Henry Plowman, Jr., Secretary.

As the so-called "D'Unger's Cinchona Cure for Drunkenness" has been advertised (and sold by its "former owner") in the daily papers of this and other cities for five or ten years past, until its worthlessness is as well known as is that of all the other advertised *cures* for *drunkenness*, etc., it is hardly necessary to caution the most credulous member of the profession against wasting even a postage-stamp on inquiries concerning it.

SECTION OF OBSTETRICS AND DISEASES OF WOMEN, OF THE AMERICAN MEDICAL ASSOCIATION.—In THE JOURNAL of last week we published a preliminary programme of work for this Section as furnished by the President and Secretary of the Section, for the coming meeting in June. The number and character of the parties named in the list affords a guarantee of an excellent meeting. We now are requested by the Secretary to add to his list the name of another eminent writer, Dr. H. F. Campbell, of Augusta, Georgia. Which Section will follow next with an equally good showing?

THE NATIONAL CODE OF MEDICAL ETHICS.—Our cheap Reprint edition of the Code of Ethics of the

American Medical Association is ready. Physicians or others wanting single copies should send a *two* cent postage stamp to pay the cost of the reprint and a *one* cent stamp to pay the postage. One hundred copies can be sent for $2.

SOCIETY PROCEEDINGS.

MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA.

Stated Meeting, November 24, 1886.

THE PRESIDENT, C. H. A. KLEINSCHMIDT, M.D., IN THE CHAIR.

H. M. CUTTS, M.D., Secretary.

Dr. D. S. Lamb presented for DR. J. TABER JOHNSON the specimens and read the histories of

THREE CASES OF OVARIAN DISEASE.

Case 1.—On the 18th of Oct., 1886, I saw Miss L., at the request of Dr. B. B. Adams of this city. She was unmarried, age 31, and had been well up to three months ago, except attacks of typhoid fever and jaundice, which she had four years ago. Her sisters first noticed her change of form which progressed with unusual rapidity, until she reached the size of a woman eight or nine months pregnant. Her condition attracted the attention of friends and neighbors, and though quite able to do so, she reluctantly appeared in public. Her disease so preyed upon her mind that she lost flesh rapidly and was fast becoming an invalid. Upon my advice she took a private room in the Providence Hospital, and on the 23d of October, 1886, I made a two inch incision and removed what proved to be a parovarian cyst, weighing twelve pounds. She has up to this moment, had no unfavorable symptoms. She left the hospital on the 20th day, perfectly well.

Case 2.—Mrs. C., white, age 24, married for three years; has been subject to most dreadful attacks of menstrual or ovaro-epilepsy, for the past ten years. She was sent to me by Dr. J. W. Bayne. Mrs. C. had been under the care of at least twelve different physicians, including Dr. Hammond, of New York. She had been told repeatedly by Dr. Hammond and others, that the cause of her trouble was ovarian, and believed to be incurable, except by removal of those organs. During these ten years the patient had worn out the endurance of as many doctors who had passed her on to the next, and of several hospitals, which had discharged her, after exhausting their nurses and drugs to no purpose. She had tired out relations, friends and neighbors, in watching and holding her. While her periods were less than normal and irregular, the menstrual molimen occurred with painful regularity, and before it, during and afterwards, she had the most active and distressing clonic spasms. She would, on some occasions, remain unconscious for half a day or more at a time, except when in an attack, when she would require the strength of a number of women to hold her, including those in the house and what neighbors would come in, until her husband could be sent for. She has been much worse since marriage than before. The patient was unable to do much, if any useful work about the house. She complained of almost constant pain in the pelvic region; and was losing ground mentally as well as physically. When I was asked by Dr. Bayne to see her, I was informed of her previous history and present condition. A vaginal examination caused much pain and brought on convulsions. I did not then feel her ovaries. Though requested by the attending physician, the patient and her family, to remove the uterine appendages, her case did not seem to me, at that time, to be one which held out a very strong promise of cure by this operation, and not wishing to have a failure, I declined to do it. Two months later their importunities were so great, and also their anxiety to take the risk of a cure, as well as the risk to life, which *were fully explained to them all.* I made another examination under ether. I found the ovaries atrophied and adherent to the tubes and surrounding structures. Believing that cause enough existed for the production of her symptoms, I agreed to operate. I had the patient take a private room in the Providence Hospital, and on the 27th of October I removed her uterine appendages. It is now five weeks since the operation, and barring her use of opium, which is an old habit, her present condition is all that one could expect or wish. I anticipate that she may have slight spasms for a while, at the time when her periods are due, but hope they will grow less and less severe until they finally disappear. Her change of life, produced by the operation, may not be any more sudden, than when it occurrs in the usual way. If at the end of two years she is free from her old troubles, I shall feel that the operation is a success, and was properly done. If she is no better I shall regret it. The evidence in recent medical literature is not conclusive on this question. Even Sir Spencer Wells in the recent symposium, in the *American Journal of Medical Sciences*, does not decide against it. He says he thinks every thing else should be done first, and well-done and continued for several years, and that all the risks of the operation should be explained to the patients and their friends; and so do I. But what shall we do with those patients who resist all treatment, marriage included, for years, and are growing worse? This operation must continue to have a limited field of usefulness in nervous diseases where all other treatment has failed. Battey in his part of the recent symposium above referred to, produces unimpeachable evidence of the beneficial and lasting effects of the removal of the uterine appendages in both nervous and mental diseases. I join those who cry out against the abuse of this operation, but I am in favor of it after other means have failed, rather than allow this class of patients to die or to repeatedly go over the same dreary old ground without benefit.

Case 3.—Mrs. W., white, age 49, married, the mother of five children; passed her menopause seven

years ago, she was without her periods for five years. During the past two years she has had some irregular bloody discharges, which were supposed to be a return of her menses. Being a patient of Dr. B. B. Adams, she sought his advice and treatment. Some of her peculiar symptoms he attributed to her rather irregular change of life. As her abdomen enlarged the question of pregnancy arose, and finally when she had clots of blood discharged, and especially when it was accompanied by a bad odor, it was supposed that she was carrying a dead fœtus, and that there had been an hydatidiform degeneration of the membranes. She was supposed at one time to be in labor, and these symptoms continued for about ten days. I was asked to see her and to assist in delivering her. Sponge tents had been introduced, and efforts had been made to rupture the bag of waters. I found her in an acute peritonitis. Her abdomen was so tympanitic, tender and distended, that an accurate diagnosis was impossible. I decided two points, however: 1. That the uterus was empty and not enlarged; 2, that she had a tumor of some kind. She grew rapidly worse for several days, until one night I was telephoned for to see her die. As she had a septic discharge, and as I had other abdominal cases on hand, I declined; but requested them to arrange for a post mortem, which they did. She had a pulse of 160, cold clammy skin, and a subnormal temperature. She rallied from this condition, and in ten days was sitting up and anxious for an operation. Dr. Busey was invited to see her at my request. He was uncertain as to whether the tumor was ovarian or cancerous, but agreed with me as to its presence, and that the uterus was empty. We decided to make an exploratory incision and remove the tumor if it appeared feasible. She at once arranged for a private room in the Providence Hospital. On the 10th inst., I opened the abdomen in the presence of Drs. Busey, B. B. Adams, Reyburn, Cutts, Cuthbert and others. The abdominal wall was at least 2.5 inches thick in fat. When the tumor was exposed it had the dark appearance of an ovarian tumor, with a twisted pedicle. Some dark extravasated blood escaped. The recent and still uncured peritonitis had caused the tumor to be everywhere adherent. These adhesions were easily broken down and I decided to proceed. After separating the tumor as much as I could I tapped it and drew off half a bucket full of what appeared to be dark red blood. It was difficult to turn the tumor out of the abdomen as it was very friable and tore when much traction was made upon it. I finally succeeded, and reaching the pedicle, transfixed and ligated it, cut away the tumor, the solid part of which was estimated to weigh at least five pounds. The bleeding from the torn surfaces soon ceased, and I was not compelled to wash out the abdominal cavity as at one time I thought I should have to do. After crowding several large sponges into the cavity, the last of them coming out clean and dry, I concluded to close the wound and put in a glass drainage tube. The operation lasted just an hour; fully a third of this time was consumed in putting in the sutures and applying the dressings. The unusual fatness of the abdominal wall was a source of difficulty and delay. I think all the gentlemen present expected the patient to die, myself among the rest, on account of the nature of the tumor and the extensive adhesions. The tumor was thought from its appearance to be cancerous. The patient has made an uninterrupted recovery; her only drawback being a troublesome cough, produced by the ether, and from abscesses along the track of the sutures. It is now two weeks since the operation and the patient is feeling perfectly well, has a splendid appetite and is anxious to sit up and go home.

DR. P. J. MURPHY presented the following history, and a bottle of thick, pinkisk-white fluid removed by laparotomy from the patient, of a case of

CHYLOUS ASCITES.

Maggie M., æt. 19, white, single, nativity D. C. Admitted to Columbia Hospital for Women, Nov. 7, 1886.

History.—Puberty at 16 years. Menses are regular, painful, scanty, light in color, and last three days. Father died of phthisis pulmonalis five years ago; and a sister died of the same disease one year later. Two children died of diphtheria and one of heart trouble from rheumatism. Family history otherwise healthy. Last summer she was a chambermaid at a hotel in the Catskills, and had to work very hard. While there she went frequently to balls, sometimes walking as far as ten miles, and being perfectly exhausted next day. Now suffers from "swelling" of the abdomen, which began about three weeks ago after an attack of "chills." When the swelling began she had a severe pain in the right inguinal region, which lasted about a week. Since then has had no pain. Bowels constipated. Appetite poor. Has dyspepsia. Has never been strong. Is now pale, emaciated and very nervous. Last menses Nov. 1st to 4th.

Examination.—An exploratory incision was made in median line of abdomen and a creamy colored fluid gushed out, 9 pints of which were saved and fully twice as much lost. Bi-manual examination (one hand inserted through the wound and the other per vaginam), showed the uterus and appendages to be normal in size and position. There was no sac present, but the fluid was clearly loose in the abdominal cavity. There was no glandular enlargement discovered or other evidence of local disturbance. A glass drainage tube was inserted, but there being no further discharge the tube was removed on the fourth day and the wound closed.

Examination of Fluid. — Color, fresh cream (slightly pinkish from blood). Reaction — alkaline. Specific gravity—1,023. Albumen—about 70 per cent. by bulk after heating.

Microscope.—A number of red and white blood corpuscles and a large number of irregularly outlined, globular bodies, having a diameter of 8 to 20 m. m., that are thought to be *lymph globules.* On standing the fluid separates into layers—the lowest being nearly white.

DR. S. C. BUSEY said the specimen just exhibited by Dr. Murphy was one of the most interesting he

had ever seen. He supposed the case was one of chylous ascites, and it was possible that the chyle had escaped through a puncture of some chyle vessel by this *filiaria sanguinis hominis*. Most of the distinctive characteristics of chyle were, however, not present, certainly not given, no fat was reported present in the milky fluid. (Dr. Murphy explained that the examination had been hasty and very likely much had been overlooked.) The pinkish color might be due, as Dr. Murphy says, to admixture with blood from the wound, but such a color may be derived from other sources. If the fluid be chyle it must have been discharged from some chyliferous vessel or escaped by transudation. In the latter event the quantity would have been small and would have gradually diminished instead of continually increasing, as in case of rupture of some chyle-conveying vessels. Only about thirty cases of chylous ascites have been reported. Most of the cases have occurred in Germany. America, England and China report a few cases.

There have been also a few cases of chylous hydrocele reported. The first in this country was by Dr. Mastin, of Mobile. Vidal was the first to suggest, but Mastin was the first to demonstrate, that the milky fluid found in these cases had escaped from dilated and ruptured lymph vessels. Having discovered the milky fluid previously by tapping the scrotum, he subsequently, after its refilling, cut down upon the sac and discovered the network of dilated and ruptured lymph vessels, ligated it, and the patient recovered. Mastin, Jr., had had a similar case, in which he found the same condition. It was treated in like manner, and also recovered. Other cases had been reported cured, one by the injection of iodine.

Lymph scrotum and chyluria are now believed to be due to the presence of the filiaria, but, as yet, only two or three cases of chylous ascites have been proven to be due to the puncture of this pariete. The escape of chyle into the peritoneal cavity in large quantities is due to the rupture of some large vessels, thoracic duct, lacteals or receptaculum chyli. Most frequently the rupture is found in the lacteals. Any condition which may interrupt or impede the flow of chyle into the subclavian vein will cause stasis, repletion, dilation, and may cause rupture, either of the duct, but more frequently of the receptaculum. or lacteals. Certain pulmonary and heart diseases have produced such results. The presence of cancerous, aneurismal and other tumors and other conditions, by occluding or obliterating the thoracic duct either at or about its terminus or along its continuity, have caused rupture of the duct or other large chyle-conveying vessels. Several cases have been ascribed to some violent and sudden effort, and at least one to congenital defect.

The diagnosis of chylous ascites can only be made by microscopic examination of the fluid. The accumulation of a fluid can be recognized and it can be determined whether free in the peritoneal cavity or in a cyst. Acute anormia, with great and sudden prostration, a loss of appetite and rapid diminution of the quantity of urine, associated with the rapid accumulation of a fluid in the peritoneal cavity, might suggest the presence of chyle.

Dr. Busey believed the treatment in this case was correct, but the fluid would probably reaccumulate, and the patient finally, as is usual, die of pulmonary disease. The fluid in chylous ascites is chyle, but in the cases of chylous hydrocele it was lymph transformed into a milky or chyle-like fluid in consequence of disease of the intima of the lymph vessels.

Dr. A. F. A. King suggested that Dr. Murphy obtain, if possible, a thorough history of the antecedents of the patient and of all points pertaining to her. He said that it is supposed that the filiariæ are spread by mosquitoes. These insects suck the embryos with the blood of the person. The embryos grow and burst open the mosquito and then fall into our food or drinking water. A peculiarity of the filiaria is that it cannot be found in the blood in the daytime.

Dr. Busey said that it was either Lewis or Manson who confined persons in a room filled with mosquitoes. Before their confinement careful examination proved the absence of the filiaria. Shortly after this confinement with the mosquitoes filiariæ were found in the subjects of the experiment. Manson was the first to discover the relation between the elephantiasis and the filiaria. He found in every case the fileria.

Meeting of December 8.

THE PRESIDENT IN THE CHAIR.

The case of

CHYLOUS ASCITES

reported two weeks previously came up for continued discussion.

Dr. S. C. Busey said that he had recently seen the case and could add some points to the history. The girl had begun menstruating at 16, and the menses had always been in every way normal except that on one occasion she had "missed" one month. She had been otherwise healthy, and last summer she had been a chambermaid in a summer hotel in the mountains. She had been accustomed when off duty at night, to take long walks, go to parties at a distance, etc. It was after one of these long walks that she suddenly felt a violent pain in her abdomen on the right side. Her abdomen then began to swell, the pain still continuing. She had good appetite and ate heartily, but lost flesh, and color and strength. Since the operation by Dr. Murphy the pain has disappeared and she has regained, somewhat her weight and strength. Before the lower end of the wound, which had been a large one, had closed, there had been some oozing of a chylous fluid. He said it looked as if some chyle duct had been ruptured by violence. Dr. Nickerson, of Lowell, reports such a cause in a man upon whom he operated several times before he obtained a cure. Another case is reported by Viniwarter, in a child. The large abdomen was supposed at first to be due to a congenital cyst. Two operations cured this case. Several other cases are reported, notably one by Bessieus in a girl due to exertion in raising a child.

DR. BUSEY replied to Dr. King that he thought the cause of pain was the rupture of the duct or receptaculum chyli, and to Dr. Cook that there was no special desire on the part of patients suffering with escape of chyle for fat. If the chyle escaped only slowly through a small opening the peritoneum readily reabsorbs it, and patient suffers no very great emaciation. In cases where there has been a large and sudden escape of chyle there is much loss of weight and symptoms of collapse. The person is probably here also kept alive by reabsorption by the peritoneum. There is a case reported by Poncy which he tapped twenty-two times in six months, removing 285 litres of chyle. Here the color and smell of foods given could be recognized. Usually there is a good appetite and the food is enjoyed.

DR. KING said that he thought that the odor of some foods, as onions, could be detected in all fluids of the body.

DR. E. CARROLL MORGAN presented a specimen of

NASAL POLYPUS,

and said he thought it instructive by reason of the beauty, freshness, and unusual dimensions of the tumor.

The history of his patient, briefly stated, is as follows: John K., white, male, aged 18 years, born in Ohio, now a resident of Washington, D. C. The patient first noticed the polypus in August, 1882, in the right naris. It grew slowly, giving little trouble. In November, 1885, he was operated on by Dr. Blank, of Columbus, Ohio, who clipped off a small portion of the tumor. Patient breathed freely for about one month, when the tumor rapidly increased in size. He was much affected by cold in the head, and by changes of temperature, and the tumor often protruded as far down as the lower lip. When the cold was relieved the tumor retracted within the nose. I operated on him at 3 P.M. to-day, Nov. 24, 1886, when the tumor was just even with the anterior nasal orifice. The polypus was removed in the presence of Drs. Thos. A. Taylor and Frank Chamberlain, is of the mucous or gelatinoid variety, weighs 265 grs. (℥ivss), measures four and a half inches in length and one inch in its greatest breadth. The attachment was apparently to the posterior extremity of the lower turbinated body, and the wonder is that there was not regurgitation of the polypoid mass into the pharynx, for it was not adherent anteriorly, allowing the wire loop to be passed freely over its entire length. The operation was done with a Douglas snare and by the aid of reflected light.

The polypus was extracted through the right anterior naris. There was slight bleeding and nasal respiration was completely restored. It is, however, not certain that the entire polypoid mass has been removed, and a second operation may be required, as in other cases.

DR. J. L. ELIOT read a paper entitled

NARCEINE IN THE TREATMENT OF WHOOPING-COUGH.

(See page 92.)

DR. S. C. BUSEY asked the cause of the convulsions, as it is very important to find out the pathological conditions present in these rare cases of whooping-cough which prove fatal by convulsions. Is it a defect of the respiratory centre or thrombosis of the cerebral sinus?

DR. G. B. HARRISON said that it is frequently stated that a second attack of whooping-cough is rare. It seemed to him that a second attack was not uncommon, and he knows of several persons who had had three attacks.

DR. A. F. A. KING said he was aware that the exanthemata attacked the child in utero, but he failed to see how whooping-cough would reach it before birth. If a child presents the symptoms of pertussis on day of birth it must have had the prodromal symptoms in the womb. As children born after having had small-pox in utero are to some extent exempt from it in after life, he does not see why the same should not be true of pertussis. He mentioned a case of twin birth where only one child had small-pox, and stated that Morrison, the obstetrician, was born with small-pox pustules, though his mother did not have it at the time, but was only nursing a son with the affection.

DR. BUSEY said that he had never heard of a case of congenital whooping-cough.

DR. KING said that he did not mean to imply that the child actually coughed in utero, but if born with whooping-cough when did the catarrhal process in the lungs begin?

DR. J. L. ELIOT said that he did not think, at any rate, that the narceine was the cause of the convulsions, as the dose was small and the effects had passed off several days before.

DR. S. S. ADAMS questioned the diagnosis made by Dr. Eliot. He said that it was extremely difficult to tell at that age what is the matter with a child. The pathognomonic symptom of pertussis is the whoop, and even that may be produced by simple laryngitis. He did not rhink that narceine would produce convulsions, but congestion of the kidneys following its use might. He said that there was no specific treatment for whooping-cough.

DR. BUSEY objected to the statement that pertussis could not occur without the whoop. For instance, all of several children of a family cough; all present the same phenomena except that one does not whoop. If this was an isolated case the diagnosis would be uncertain. But if whooping-cough was epidemic and the others undoubtedly had it, he thought it fair to say that the child who did not whoop had it also. Usually the cough and whoop are associated, but the latter varies in degree and intensity, and may only occur once or twice, or not at all, during the attack. He thought that there was no medicine which could stop the disease, but it could be cut short by treatment. The epidemics also vary in severity and contagiousness, and the remedies successful in one will fail in another. The season had its effect. In autumn and winter attacks were less controllable. Climate and hygienic surroundings were elements to be considered. He has seen one death preceded by convulsions, and thrombosis of the cerebral sinus was probably the cause. The case just reported may have had pneumonia or ate-

lectasis. The narceine narcotism would have helped bring about the former. Of course he does not censure Dr. Eliot for having given narceine. The child also must have been badly nourished, which condition would predispose to cerebral thrombosis.

Dr. Adams said he was still unconvinced that pertussis could be diagnosticated without the whoop.

Dr. T. E. McArdle said that the mere fact of a laryngitis or a bronchitis occurring in a child in a house with several cases of whooping-cough did not prove that the child had pertussis. For his part he knew of no way to tell the disease without the whoop.

Dr. Briscoe said that about six years ago he caught the disease from his children. His paroxysms of coughing and theirs were alike, but he whooped only once or twice during the attack.

Dr. G. W. Cook said that the whoop was only an inspiration after a violent attack of coughing, and might happen after such a paroxysm from any source.

Dr. G. B. Harrison said that he had diagnosticated endemic cases before the whoop appeared. There was a characteristic peculiarity in the paroxysm of coughs.

Dr. Adams asked how the diagnosis was made without the whoop?

Dr. King replied that there were a series of short expirations which cut off the air supply and the person gets blue in the face.

Dr. Adams said that he had seen the same in bronchitis.

Dr. Busey said that there were paroxysms of cough which increased in their intensity up to a certain point when they began their decline. They have, as Dr. Harrison says, a peculiarity of their own. If the chest be examined before the paroxysm we will hear coarse and moist râles which disappear after the fit of coughing, and this occurs in no other condition with which he is familiar.

Dr. Adams said that we can make a diagnosis in most diseases if we wait long enough, it may be at the autopsy. Bronchitis has usually been associated with his cases of whooping-cough, and the râles he has found both before and after a paroxysm.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Stated Meeting, Thursday, December 2, 1886.

The Vice-President, E. E. Montgomery, M.D., in the Chair.

W. H. H. Githens, M.D., Secretary.

(*Concluded from page 82.*)

Dr. Joseph Price read a

REPORT OF THIRTY-ONE CASES OF INTRA-ABDOMINAL OPERATIONS DONE WITHOUT ANY SELECTION IN PRIVATE HOSPITAL; BY R. STANSBURY SUTTON, OF PITTSBURGH, PA.

October 27, 1883, Mrs. B. Ovariotomy, large cyst; recovered.

November 18, 1883, Mrs. O. Ovariotomy, large cyst; recovered.

December 28, 1883, Mrs. C. Ovariotomy, large cysts, extensive adhesions, tapped frequently; recovered.

February 2, 1884, Miss T. Supra-vaginal amputation of uterus, with both ovaries and tubes; recovered.

February 20, 1884, Miss P. Supra-vaginal amputation of uterus, with both ovaries and tubes; large fibroids of uterus; recovered.

March 20, 1884, Mrs. K. Ovariotomy, left ovary large and cystic, developed under the broad ligament and roofed over by it. The ligament was opened up to get at it. On right side a fibro-cyst of the uterus, with adhesions, existed. Performed supra-vaginal amputation of the uterus with the remaining ovary and tube, and split the broad ligament of the left side; recovered.

April 22, 1884, Mrs. S. Ovariotomy, large cysts, extensive adhesions, especially to the liver, had been often tapped. Liver was burned with cautery iron over strip one inch broad by four or five inches long to stop bleeding. Incision in abdominal wall seventeen inches long; recovered.

May 12, 1884, Mrs. D. Large sarcoma of left ovary, general chronic peritonitis with ascites, tumor fed by enormous vessels. Pedicle tied and dropped as in ovariotomy. Pulmonary clot occurred on fourth day suddenly with temp. 99°; died.

May 29, 1884, Mrs. G. Ovariotomy, large cyst, adhesions; recovered.

June 24, 1884, Mrs. S. Pelvic abscess. Tait's operation (the pus was stinking); recovered.

July 12, 1884, Miss M. Removal of sub-peritoneal fibroid, anterior wall, pedicle short; recovered.

July 12, 1884, Mrs. L. Supra-vaginal amputation of uterus with 16 pound fibroid; extensive enucleation, adhesions numerous; died.

September 16, 1884, Mrs. R. (insane), removed both ovaries and tubes, cured; recovered.

September 22, 1884, Miss J. Both ovaries and tubes removed. Died of septicæmia on fifteenth day. (Consultants pronounced it typhoid fever.)

September 24, 1884, Mrs. W. Supra-vaginal amputation of uterus and both ovaries, with 15 pound fibroid, extensive enucleation, vast adhesions; tetanus; died.

December 4, 1884, Mrs. C. Supra-vaginal amputation of uterus for large fibroids; extensive intestinal and mesenteric adhesions, and in the presence of peritonisis, very bloody operation. Shock was too great; died.

December 17, 1884. Resection of small intestines at two points for cure of artificial anus and extensive adhesions of gut, fatal on seventh day from renal hæmorrhage. Five stones, one an inch long, were found in the kidneys post mortem. The points of resection were found with difficulty, the sutures were all covered. (My first and only other resection of intestine recovered and is living, three and one-half years since operation.)

March 7, 1885, Mrs. J. Ovariotomy, large cysts, extensive adhesions; had often been tapped; recovered.

April 7, 1885, Miss S. Exploratory incision; recovered.

June 10, 1885, Mrs. L. Double ovariotomy, dermoid on right side; recovered.

June 27, 1885, Miss H. Both ovaries and tubes removed; recovered.

July 30, 1885, Miss D. Ovariotomy, large cysts, extensive adhesions, came in a dying condition, had been tapped very often; died.

November 18, 1885, Mrs. B. Ovariotomy, incomplete small cyst, size of cocoanut. As it was impossible to remove the cyst on account of adhesions, it was emptied, dried out, and lining well mopped with a five per cent. carbolic solution. Recovered and cyst has not refilled.

November 19, 1885, Mrs. M. Oöphorectomy, right ovary and tube; recovered.

November 24, 1885, Mrs. W. Double ovariotomy, large cysts, bad adhesions, patient very anæmic and feeble, had been tapped often; recovered from operation, but died from peri-nephritic abscess three months afterwards.

January 9, 1886, Miss N. G. Oöphorectomy, pyosalpinx; recovered.

March 23, 1886, Mrs. R. Oöphorectomy, right ovary and tube; recovered.

April 3, 1886, Mrs. N. Oöphorectomy, both ovaries and tubes; kidneys contracted, uræmic poisoning a week after operation, coma, death.

October 1, 1885, Miss S. Oöphorectomy, right ovary and tube, chronic ovaritis and salpingitis; had to dig the ovary and tube out of a mass of adhesions; bad case; recovered.

November 20, 1886, Mrs. N. Double ovariotomy, removed large parovarian cyst and cystic ovary on left side and cystic ovary on right side; recovered.

This list of thirty-one abdominal sections are all I have made in my private hospital during the three years of its existence. I have never used spray over a wound, and only occasionally in my earlier cases I used 2½ per cent. carbolic solution over the instrument. Long ago I quit this and have used no chemical during the operations. After closing the wound I dress it with iodoform gauze. Our wounds all heal by first intention. A great many of these patients have neither health, strength, or money when they come to us. Rich or poor, all have had the same chance for life. All the provisions of cleanliness known to science and art are practiced in my institution. With our present good condition, I believe we can save 98 per cent. of ovariotomies sent within a year or eighteen months from the time the disease begins, and without having been tapped. We never lose a case if in fair condition, and if no trocar has been previously introduced into the cyst.

In this list there were thirteen ovariotomies for large cysts, and in one case a supra vaginal hysterectomy was also done. Of these thirteen cases two died, one of the two three months after operation, and the other was in the last stages of exhaustion when she was brought in on a stretcher.

Of the cases of supra-vaginal amputation of the uterus and both ovaries, there were six. In one an ovariotomy was also done for large cysts. Of these cases three recovered and three died.

The Tait operation for large pelvic abscess recovered.

The intestinal resection was not lost through the operation. The removal of the uterine appendages shows a mortality of two cases; one was due to operation, I think the other was not.

I am sure that, as we gain experience in further operative work and exercise more care in rejecting cases with bad kidneys, our results here will compare favorably with others. Thus far we have refused no patient willing to enter the list for operation, and I am sure that no operator, East or West, is likely to meet with worse cases than are contained in this list.

Summary:

Ovariotomies, McDowell operations	13
Oöphorectomies, Hegar-Tait operations	8
Laparotomy for pelvic abscess, Tait operation	1
Resection of intestine	1
Removal of large solid sarcoma of ovary	1
Supra-vaginal amputation of uterus and both ovaries	6
Exploratory incision	1
Removal of sub-peritoneal fibroid of uterus	1

(One case is counted twice, first as an ovariotomy for large cysts complicated with supra-vaginal amputation for fibro-cyst of uterus; second, as a supra-vaginal amputation of uterus complicated by ovariotomy.)

In looking over my ovariotomy cases who have recovered during the last ten years, I find that eight children have been born to them. My last laparotomy (46th) for all diseases yet attacked by operation, by me, was a large parovarian cyst, with both ovaries cystic. The cyst and both ovaries were removed through a two inch incision, the dressing completed, and the woman in bed, in thirty minutes, without any haste. She has taken no drugs, not a drop of anything. Temperature on the fourth day was normal and the pulse 76. Wound completely healed. Experience with honest precautions, coupled to a possibility of earlier operations and a discontinuance of tapping, will result in as good statistics in this country as abroad.

DR. H. A. KELLY remarked that Dr. Sutton's account of his cases is very interesting, and in many particulars instructive, and better results for general work, handling all classes of cases without selection, certainly can not be found in our country. He, Dr. Kelly, called especial attention to the note by Dr. Sutton, that his ovariotomy patients have borne eight babies within the past ten years. This fact is significant as deciding a question which has been discussed in terms of vague generalization and sentimentality, "The Other Ovary."

About a year ago, when writing a paper upon ovarian cysts of large size, Dr. Kelly found facts in Sir Spencer Wells's table which determined this question for him upon a solid scientific basis. Of Sir Spencer Wells's 1000 cases, 768 recovered; and deducting from these 343 over 40 years of age, as beyond the child-bearing period, we have left 371; again deducting twenty more, which was about the number of double ovariotomies, under 40 years, recovered, we have left about 351 women survivors with one ovary and in a child-bearing condition. As an actual fact, 117, or about one-third, did bear children to the number of 228, or a fertility of about 65 per cent. to the total number of survivors. This is

then clearly the advantage of leaving one ovary in 351 women, to-wit: 228 children. Now what are the disadvantages? Obviously a return of the tumor in the other ovary, and death from the second operation,

In seven of these 351 women a second operation was necessary, and one of the seven died of a tumor, doubtfully uterine.

Here, then, is the status of "the one ovary" case. *One doubtful death* of a woman seven years after her first operation, against *two hundred and twenty-eight children born!*

Dr. Kelly could not accept the diagnosis of death from typhoid fever in a surgical case within three weeks of operation, in the absence of careful post-mortem examination. The typhoid condition is so common in all cases of peritonitis tending to a lethal end, and true typhoid fever so extraordinarily rare, that he rejected the diagnosis not subsequently confirmed. It savors too much of the many cases of women coming to my office week after week who tell me they "have never been well since their last confinement, when they had typhoid fever." Dr. Sutton, however, does not himself make this assertion.

Dr. Coffee, of Pittsburgh, drew attention to a case under his own observation in which typhoid fever of distinct character followed close upon a surgical operation.

Dr. M. Price spoke of a case in which typhoid fever followed immediately after an attack of small-pox.

Dr. Joseph Price reported a case of

HYSTERECTOMY FOR MYOMA.

The patient had applied to Dr. J. R. Haynes on account of menorrhagia, with hypogastric discomfort. Uterus about the size of a three months' gravid uterus. She became very much prostrated, and suffered from sciatica in the right leg. The tumor grew rapidly, and seven months after first seeing her the tumor was found to extend from the umbilicus to the perineum, resembling in shape and position the gravid uterus at seven months. Two inches below the umbilicus and to the left a bruit was distinctly heard. Fœtal heart-sounds could apparently be distinctly heard beating 125 per minute, but they were syncronous with the patient's pulse. The lower portion of the tumor extended into the vagina almost to the perineum, and resembled very much a fœtal head surrounded by a small quantity of fluid. The os uteri could be felt, only with the utmost difficulty, behind the centre of the os pubis.

November 19 Dr. J. Price performed abdominal section; before operation her pulse was 150 and temperature 100°. Six syringefuls of brandy were given hypodermically. The operation lasted about an hour. The patient slept well that night and improved in condition for a few hours, after which vomiting occurred, followed by great restlessness, pain, and increased frequency of pulse. Peritonitis developed and the patient died at 7 A.M., about thirty-one hours after the operation. Post-mortem examination showed nearly a pint of bloody serum in the peritoneal cavity.

Dr. Price remarked that in reviewing the operation he felt that, with one exception, he had nothing to regret, but he did regret that he had not introduced a drainage-tube. His reason for not using it was the complete absence of bloody stain in the last abdominal washings; but it is his rule to use a drain whenever there have been adhesions to separate; he had three tubes in use in other patients at that very time. He feels assured that if he had used a drainage-tube in this case the woman would have recovered.

Dr. H. A. Kelly considered the important error in this case was the neglect to insert a drainage-tube, and gladly made this subject the text of a few remarks. Operators at large should by this time have reached a common understanding as to just how and when the drainage-tube should be used. In the *first* place: whenever there is any denuded area as large as the palm of the hand, or smaller if there be a tendency to weep, a tube should be introduced, and sometimes when least expected several ounces of serum will well up through the tube daily, and the absorptive powers be saved a severe tax. *Second: Whenever in doubt, use the tube;* no harm ever comes from it when guarded with the antiseptic precautions now in common use.

His own plan is as follows: Pass all the silkworm sutures as if the whole length of the incision was about to be closed, slip in the drainage-tube (he prefers a straight glass one under ordinary circumstances), and run down the shot and close the wound to the tube, but the two sutures passing through the track of the tube are left long, to be used after the removal of the tube. He then, once or twice a day, draws out all serum accumulated in the pelvis by means of a long nozzle uterine syringe. When all discharge has ceased, provided it has been but sweet, clean serum, he withdraws the tube, and running the shot down on the two unused sutures, closes the wound perfectly, leaving only a linear cicatrix instead of a deep pit at the lower angle to be filled up by granulations and a large plug of scar tissue; this is also safe after suppuration, provided all suppuration has entirely ceased.

He does not like Koeberle's clamp, which had been used by Dr. Price in this case, and considers it far more dangerous, in every way, than the elastic ligature. Sänger's device, just announced, combining an extra- and intra-peritoneal treatment, promises much, and is certainly destined to repeated trial.

Dr. Montgomery thought the case one of extreme interest in point of diagnosis and treatment. The pressure of the tumor on the ureters causes changes in them, and also sacculation of the kidneys. He had operated in a similar case some years ago, and subsequent examination revealed sacculated kidneys, and pus in one; even if no knife had been used, the patient would have died from the ether. He thinks, with Dr. Price, that the drainage-tube should have been used in his case.

Dr. Joseph Price remarked that he had no fear whatever of the drainage-tube, and thought it might be used in every case. Tait's rule: "When in doubt, use the tube," was a good one. Dr. Price made some remarks upon his methods of using drainage-tubes of

glass, using cotton wick in some cases to remove accumulations of serum and to clear the openings of the tubes, using a sucking bulb with gum tubing to draw out fluid accumulations, and introducing a smaller gum tube through the glass one before withdrawing the latter.

DR. M. PRICE exhibited specimens from a case of

PYOSALPINX OF GONORRHŒAL ORIGIN.

Is pyosalpinx not generally or always the result of gonorrhœa? His cases have, without exception, followed attacks of gonorrhœa. Can such a sequel be anticipated and prevented?

DR. MONTGOMERY remarked that Dr. Noeggerath initiated the idea of latent gonorrhœa as the cause of salpingitis and pelvic peritonitis.

DR. M. PRICE remarked that his patients had been in robust health; they were generally women who had borne but one child, and the labor had been followed by repeated attacks of peritonitis.

DR. LONGAKER read a report of a case of

LAPAROTOMY FOR PYOSALPINGITIS.

Maggie T., aged 33, was admitted to Lying-in Charity Hospital November 13, 1886. She had one child eighteen years before, after a difficult and prolonged labor. Unmarried, and has a history of specific disease. During the last four years her periods have been accompanied by intense suffering, and in the intervals she was never free from distressing aches in the pelvis. Lately she had used opium to some extent. In addition to the evident enlargement of the appendages on both sides, the patient has a perineo-recto-vaginal fistula and a stricture of the lower end of the rectum. A diagnosis of pelvic cellulitis was made by him in this case two years ago. *Operation* November 18. The left tube, a sausage-shaped tumor, and the ovary, a fluctuating mass the size of a walnut, were easily removed; a small amount of pus escaped from the end after ligation, but this was arrested by pressure forceps. The ligature was necessarily passed over the uterus, but owing to friability of tissues, troublesome oozing continued and delayed closure of the abdomen. On the right side the ovary and tube formed a large abscess the size of a goose-egg. It was impossible to separate and remove this without rupture. It was filled with pus and altered blood. Adhesions were dense and firm. There was also some oozing on this side, but it gave rise to comparatively little trouble. The peritoneal cavity was irrigated with hot water; 1 to 5,000 bichloride solution sponges. Abdominal walls sutured with silk over which was placed an impervious coat of iodoform collodion. Convalescence uneventful. She is now free from pain.

DR. M. PRICE inquired about the source of hæmorrhage. He had seen severe hæmorrhages due to the fact that the tube was cut by the ligature. He thought it important to tie straight across the tube and not obliquely. He ligates by double ligature and ties back. He considers it right to open up at once if hæmorrhage is at all free; he does not think it right to trust to sponges and hot water.

DR. JOSEPH PRICE had seen very free hæmorrhage from adhesions to the bowels, large sinuses being laid open and pouring out blood. In several cases he had used iron as a styptic.

DR. LONGAKER explained that the hæmorrhage came from the opening up of the broad ligament.

DR. H. A. KELLY read a paper embracing

NOTES ON PALPATION OF THE FEMALE URETERS,

which will be published in full with diagrams.

DR. JOSEPH PRICE read an interesting letter from Dr. Joseph Eastman, summarizing the features of McDowell's early operations, showing how perfectly antiseptic his work was.

DR. COFFEE spoke of Dr. Sutton's work as being pioneer work. He gave up good practice and went to Europe to work up this field.

DOMESTIC CORRESPONDENCE

LETTER FROM NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

Antiseptic Treatment of Summer Diarrhœa—Officers of the Academy—Hospital Saturday and Sunday Fund.

At the last meeting of the Academy of Medicine Dr. L. Emmett Holt read a paper on the "Antiseptic Treatment of Summer Diarrhœa," which seems likely to have a marked effect upon the manner of dealing with this affection in the future. As he truthfully remarked, an examination of even the most recent text-books on the diseases of children will show that practically the same methods of treatment are inculcated which were in vogue fifty years ago; so that there would certainly appear to be some "room for improvement."

Dr. Holt said that he made use of the term summer diarrhœa as designating an affection with which all were familiar, but which did not involve any points of pathology about which there might be differences of opinion. While acknowledging the prime importance of suitable hyygienic conditions in the treatment, it did not come within his province on the present occasion to discuss these. With the exception of instances of pure cholera infantum, all cases of summer diarrhœa are, in his opinion, due to fermentation or putrefaction in the intestinal tract. Among the factors entering into the causation of the trouble he mentioned heat, improper feeding, and bad hygienic surroundings. The affection was evidently not due to heat alone, or else we should find the greatest mortality among infants under six months of age; which was not the case. During the first six months a much larger proportion of infants were wet-nursed than at a later period, and it was after this age that the greatest number of deaths was noted.

In treating of the influence of heat he spoke of its effect not only upon the child, but upon its food, and referred to an instance at the New York Infant Asylum in which no less than twenty-three children became affected with diarrhœa from the use of tainted milk. In tenement-houses all the conditions were

especially favorable to the contamination of this article of food, and it was only a wonder that more children did not suffer from this cause than was actually the case. In this connection he spoke of the development of poisonous ptomaines from food, and alluded particularly to the investigations of Professor Vaughan, of the Michigan State Board of Health, in regard to the principle which he had designated tyrotoxicon. Brunton's researches had also, he thought, furnished the solution of many hitherto insoluble problems. Cerebral symptoms had been generally supposed to be due to the sudden stoppage of the diarrhœa; but Huchard had shown that poisonous ptomaines were evolved from human fæces even in a state of health, and this was the case to a much more marked extent in such diseases as summer diarrhœa.

In this affection, Dr. Holt went on to say, the inflammatory changes are almost entirely confined to the large intestine. A specific microbe having a causative relation to the disease had not as yet been demonstrated; though numerous bacteria, of various kinds, were always found in connection with it. The indications for treatment were as follows: 1, clear out the bowels; 2, stop decomposition; 3, restore healthy action to the bowels; 4, treat the consequential lesions.

In the first place, it was necessary to clear out the bowels for the same reason that the surgeon thoroughly cleanses a wound before applying his antiseptics. In nearly all cases, Dr. Holt said, he began his treatment with a cathartic, in order to remove the altered secretions; and if the stomach was not very irritable, there was no purgative which was to be compared to castor-oil for this purpose. If the stomach was irritable, he was in the habit of using large injections of water by means of a fountain syringe. By experiment he has found that it takes almost a pint of fluid to reach the ileo-cœcal valve, and at least this quantity, he thinks, should be used. In many cases the castor-oil was all the medicine that was required, as a suitable dietetic and hygienic regimen would complete the cure. In cases in which the passages, consisting of pure serum, were odorless and alkaline in reaction, no preliminary cathartic was required.

In order to arrest decomposition and restore healthy action to the bowels, the most efficient agent that he had met with was salicylate of sodium. If there was much vomiting, it was better to withhold food altogether for from ten to twenty-four hours; employing carbonic acid water, or thin barley water, for allaying thirst. In children under 2 years of age no milk whatever should be allowed; though peptonized milk was less likely to do harm than either condensed or ordinary cow's milk. He had known many relapses to be brought on by the use of milk.

The treatment of the consequential lesions, the fourth point considered, consisted in, 1, appropriate dietetic treatment; 2, the continuation of the antiseptic; and 3, the washing out of the whole large intestine every day with pure water or a weak antiseptic or astringent solntion. The medicinal agents which he preferred for these injections were benzoate of soda and nitrate of silver. It was a fact, he said, that all the drugs which had hitherto proved of service in the treatment of summer diarrhœa, with the exception of opium (in regard to which there had been much discussion), were of a more or less antiseptic nature. He then proceeded to give a *résumé* of the history of the use of antiseptic remedies proper in this affection, from the year 1846, when creosote was first employed for its relief.

In order to find out what is the present practice in New York institutions, Dr. Holt has written to the physicians of fourteen of these, including the Nursery and Child's Hospital, the Foundling Asylum, St. Mary's Hospital for Children, the Demilt Dispensary, and a number of other prominent hospitals and dispensaries, in which upwards of 40,000 children — 25,000 of them for diarrhœal diseases—are treated annually. He ascertained, among other facts, that opium was used in all, bismuth in all, chalk mixture, with paregoric and astringents, in quite a number, castor-oil as a preliminary medication in six, castor-oil emulsion, with equal parts of the oil and of paregoric, in three, calomel in three, ipecac in three, pepsin in one, iodoform in one, morphia and atropia hypodermically in one, and astringent injections in three.

In his own experience Dr. Holt found that with the use of opium, bismuth and astringents, 50 per cent. of cases are cured, and 7 per cent. died; the remainder being classified as improved and unimproved. A year ago last summer he first commenced the use of salicylate of sodium. In about two-thirds of the cases in which he employed it he gave castor-oil as a preliminary to the treatment, and out of 81 cases, 60 were cured, 14 improved, 6 unimproved, and 1 died. He also treated 44 cases with naphthaline, 22 with resorcin, and 28 with bichloride of mercury. The comparative results of the different remedies were as follows: Cured by opium, bismuth and astringents, 50 per cent.; cured by salicylate of sodium, 84 per cent.; cured by naphthaline, 67 per cent.; cured by resorcin, 55 per cent. He, therefore, considers the salicylate of sodium the most efficient remedy; and next to this comes naphthaline.

Having related an illustrative case in which the sodium salicylate, administered after a preliminary dose of castor-oil, had effected a cure in an apparently hopeless case, he stated that he is in the habit of giving this remedy in doses of from 1 to 3 grains, in aqueous solution, every two hours; and recommended that it should be administered with the food or drink. It did not produce vomiting, but, on the contrary, often allayed irritability of the stomach. Naphthaline could be given in doses of from ½ grain to 5 grains, and resorcin in doses of from ½ grain to 2 grains. Bichloride of mercury, which should be given in doses of from $\frac{1}{120}$ to $\frac{1}{100}$ of a grain, was sometimes apt to produce vomiting. Dr. Holt said that he did not undervalue the efficiency of opium in other forms of diarrhœa.

In conclusion, he stated that the use of evacuants constituted an essential part of the antiseptic treatment of summer diarrhœa, and that he considered the latter especially valuable because it was aimed at the cause of the trouble in the intestinal canal, and not simply at its effects.

In the discussion which followed the reading of the paper Dr. Wilcox related his experience with naphthaline in the treatment of diarrhœa; stating that he had employed it in thirty-two cases, though nearly all of them were in adults. In his hands it had proved so efficient that he had come to regard it of the same value in diarrhœa as mercury in syphilis, or quinine in malarial trouble. In order to secure its full effect the patient should take at least 60 grains a day, and in some cases as much as 120 grains was required. He gives it chiefly in starch capsules, with some oil of bergamot to conceal its odor. Occasionally he has found that the urine becomes smoky under its use, but he has never been able to detect any albumen or casts in it. In one case of twenty-four years' standing, in a man 61 years of age, a cure was effected by the use of 90 grains a day. In two cases he has employed it successfully in the diarrhœa of typhoid fever. The patients were in the third week of the disease, and took from 60 to 90 grains a day; which reduced the stools to two in the twenty-four hours, and rendered them perfectly odorless. Naphthaline has also an antipyretic effect in these cases, and Dr. Wilcox regards it as quite as safe as antipyrin, thallin, or any of the other agents of this class now in use. He has also tried resorcin to some extent, but with very indifferent results.

Dr. Andrew H. Smith remarked that it had been his idea for some time that the cause of summer diarrhœa could be best treated by the aid of antiseptics. The essential oils which were in common use in domestic practice were really antiseptics, and the same was true of the pennyroyal, spearmint and peppermint teas so often resorted to in the country.

Dr. Van Santvoord said that Dr. Holt was no doubt correct in considering the disease primarily dyspeptic in character. He thought bismuth was of service not simply from its mechanical effect, but because it was a true antiseptic. The inflammatory changes were largely located in the large intestine, and he was in the habit of employing large astringent injections, in which he combined an alkali with the astringent, in order to remove the mucus which covered the parts.

The President, Dr. Jacobi, said that he quite agreed with Dr. Holt as to the antiseptic character of remedies long in use. As regards bismuth, which he never considered simply as an inert mechanical substance, he had published an article twelve years ago in which he distinctly claimed that it was an antifermentative. He also agreed with Dr. Holt as to the importance of appropriate dietetic treatment, and particularly in regard to the danger from milk, which it was often necessary to withdraw for a number of days. For twenty-five years, he said, he had taught that the disease could not be cured unless milk was given up as a food; but there were plenty of things which could be temporarily substituted for it. He himself generally used the white of egg, raw, mixed with barley water.

Dr. Peabody said that he had come to look upon naphthaline as a very valuable addition to our therapeutical resources in a number of intestinal com plaints. For some time past he had been using it in all the earlier cases of typhoid fever which came under his care at the New York Hospital, and in several instances the disease had apparently been aborted by the remedy. He referred particularly to a case which came under treatment on the second day of the disease. By the thirteenth day the fever was gone and convalescence was established, although the patient had had the usual prodromal symptoms of typhoid, and the characteristic eruption and enlargement of the spleen had been well marked. All his cases of typhoid fever, he said, were given a preliminary full dose of calomel. In conclusion, he mentioned some obstinate cases of chronic diarrhœa which had been promptly cured by the use of naphthaline.

In bringing the discussion to a close Dr. Holt stated that Dr. Caldwell, who had expected to be present, had used salicylate of sodium with much success in twenty cases of the diarrhœa of phthisis.

At this meeting the following officers of the Academy were elected: President, Dr. A. Jacobi; Vice-President, Dr. Wm. H. Draper; Treasurer, Dr. W. F. Cushman; Member of the Board of Trustees, Dr. Everett Herrick.

The amount thus far reported from the annual Saturday and Sunday Hospital collection is about $40,000, and there is reason to suppose that the grand total will exceed that of last year. P. B. P.

BOOK REVIEWS.

WÖRTERBUCH DER BACTERIENKUNDE. Bearbeitet von DR. W. D. MILLER, Professor am Zahnärztlichen Institut der Universität Berlin. Stuttgart: Verlag von Ferdinand Enke. 1886.

DICTIONARY OF BACTERIOLOGICAL SCIENCE. By DR. W. D. MILLER, Professor in the Dental Department of the University of Berlin. Sm. 8vo. Stuttgart: Ferdinand Enke. 1886.

To Professor Miller the Profession in general and bacteriologists in particular should be grateful for this Dictionary of Bacteriological Science, which he has so carefully and laboriously compiled. In this, his own country, and in Germany, Prof. Miller is well known through his writings, not only concerning dentistry, but also concerning those microörganisms which represent the lowest forms of life, and which are so near the border line that biologists had much discussion whether they should be classed in the vegetable or the animal kingdom.

Prof. Miller is the first and only American who has been raised by the German Government to the honorable position of Professor in the University of Berlin. He has discovered, described and named several microörganisms, perhaps the most important of which are those which cause dental caries, and the Miller bacillus. The latter is a comma bacillus found in the human mouth, and which, though for a long time recognized as morphologically similar to that ascribed by Koch to cholera Asiatica, and to that by Finkler and Prior to cholera nostras, yet was so re-

sistant of isolation by the efforts of all bacteriologists, that it remained for Prof. Miller to obtain pure cultures of it only after repeated attempts.

The Dictionary describes not only a long series of different kinds of microörganisms carefully selected from the great mass of literature on this subject, and scattered through the different modern languages, but also the various technical expressions which have been recently coined to meet the needs of the bacteriologist, who, together with the practicing physician, has appreciated the want of just such a work. The former will look herein to find the nomenclature, description and source of those microörganisms with which he may chance to be less familiar, and the latter can obtain ready reference to the bacteriological names and expressions which appear in the course of his general reading.

It may be expected that an edition in English will soon appear.

Milk Analysis and Infant Feeding. By A. V. Meigs, M.D. 8vo, pp. 102. Philadelphia: P. Blakiston, Son & Co. 1886. Chicago: W. T. Keener.

In this little book Dr. Meigs attempts to show that the great majority of analyses of human milk made by various chemists are wrong. He claims to have discovered that the caseine of human milk amounts to seldom more than one per cent.

Dr. Meigs has evidently undertaken to work in a field where he is not at home. This subject has been thoroughly discussed years ago, and by men who are well known as thoroughly trained chemists. Their conclusions do not agree with those of Dr. Meigs.

In the part of the book relating to infant feeding, the author presents a number of practical observations from the experience of himself and others, and makes suggestions as to what is the proper food for infants of different ages.

MISCELLANEOUS.

Hot Springs Water.—A circular recently issued by the War Department says, in regard to the water of the Hot Springs of Arkansas: Relief may reasonably be expected from the use of the Hot Springs water in the following classes of diseases, viz., gout and rheumatism in their various forms, after the acute or inflammatory stage has passed; neuralgia, peripheral or central, especially when depending upon gout, rheumatism, specific infection, or metallic poisoning; paralysis, if not recent, progressive, or organic; locomotor ataxia, or tubes, if not in advanced stages, and especially if traceable to specific infection; Bright's disease of the kidneys, only in the early stages; diseases of the bladder and urinary organs; functional diseases of the liver; dyspepsia; chronic diarrhœa and catarrhal diseases generally; chronic skin diseases, especially of the squamous or scaly forms; chronic conditions, resulting immediately from specific infection, either syphilitic or malarial; chronic alcoholism.

In general terms, it may be stated that the Hot Springs water acts by stimulating all secretions and organic functions, increasing appetite, promoting digestion and assimilation; favoring tissue change and excretion of waste products, relieving internal congestions, and stimulating the blood-making function.

In the following classes of diseases the use of the Hot Springs water is contraindicated: All acute, inflammatory diseases; tuberculosis; organic diseases of the heart and brain; aneurism; cancer; and all diseases in which stimulation of the circulation is to be avoided.

Collective Investigation on Centenarians.—The late Dr. Farr has shown, in his "March of an English Generation through Life," that one million children born in England live forty million, eight hundred and fifty-eight thousand, one hundred and eighty-four years, that two hundred and twenty-three live to the age of one hundred, and that finally at the age of one hundred and eight, one solitary life dies.

In the supplement to the *British Medical Journal* of December 11, Prof. Humphry has analyzed the returns from reliable medical men regarding fifty-two centenarians tabulated from the results of a form of inquiry issued by the Collective Investigation Committee of the British Medical Association. In only eleven was the age confirmed by any official record, but the others were naturally assumed to have at least reached nearly the age of one hundred, the informant, in each case, being competent to estimate the value of the evidence, and in most of the cases being intimately acquainted with the individual.

In eleven the intellect is stated to have been high, and low in only five; twenty were reported strong, sixteen of average strength and twelve feeble. Thirty-six were women, sixteen men—a fact explained by Mr. Humphry partly by the fewer exposures of women, notwithstanding the dangers incidental to childbearing and the diseases associated with the varying demands made at different periods upon the organs connected with that process; and partly also by the greater inherent vitality in the female.

Of the thirty-six women, twenty-six had been married, eleven had large families, and eight married before they were 20, one at 16 and two at 17. Many of the centenarians were members of large families, there being but two designated as only children. Forty-one of the fifty-two had been married. Twelve were first children. The parents of one centenarian were first cousins.

The average centenarian qualities were a good family history, a well-made frame of average stature, spare rather than stout, robust, with good health, appetite, and digestion, capable of exertion, good sleepers, of placid temperament, and good intelligence, with little need of, and little consumption, of alcohol and animal food, although one man always did and "always will" drink to his utmost capability.

Three were affluent, nineteen poor, and twenty-eight in comfortable circumstances.

Twenty-four of the centenarians had no teeth, and the average number retained was only four or five.

Twenty-eight used glasses, but thirty-five, including many who used glasses, were reported to have been in the enjoyment of good sight. Hearing was good in twenty-two, indifferent in seventeen, bad in nine, one was deaf.

The majority were moderate or small eaters, but maintained an average pulse of 70° and respiration of 22—a fact explained by the diminished elasticity of the circulatory and respiratory apparatus. The arteries had become less capable of accelerating the blood-stream, and the vital capacity of the chest was much reduced, as shown in the slight difference in the chest-girth between the state of inspiration and that of expiration. The hours of sleep averaged nearly nine, the extremes being twelve and four.

The brain held out as well as the other organs, perhaps better; two only were demented. The weakness or failing, generally, seemed to have been about equal in the several great organs.

The majority had suffered little from illness at former periods, yet some had recovered from severe diseases. The habits of life were generally such as conduce to health, necessitated in a measure, at least, by some from their occupations. Thirty-two did not use tobacco; twelve were total abstainers from alcohol, twenty-two took little, eight drank moderately, one drank to excess, on festive occasions, one was a free beer-drinker, and one "drank like a fish all his life" when he could, but said also that he could not get much.—*Boston Med. and Surg. Jour.*, January 13, 1887.

ASEPTOL: A NEW DISINFECTANT.—This substance is orthophenol-sulphuric acid, and has been known since the year 1841. It has been lately brought forward in France as a disinfectant, and Dr. Hüppe (*Centralb, f. d. Med. Wiss.*, No. 50, 1886), has made experiments with it, which have led him to the opinion that it possesses advantages entitling it to rank beside carbolic acid and bichloride of mercury. Commercial aseptol is a syrupy liquid, having a faint odor of carbolic acid. It is soluble in all proportions in water, alcohol, and glycerine, and even in a 10 per cent. solution has no caustic action upon the skin. Such a solution kills spores of anthrax in thirty minutes, whilst a 5 per cent. carbolic acid solution requires at least twenty-four hours to produce the same effect. A 3 or 5 per cent. solution of aseptol is a true disinfectant for spore-free micro-organisms, or for such as do not form endogenous spores. A 3 per cent. solution was found quite sufficient to disinfect the (previously cleansed) hands. Solutions of aseptol in alcohol, glycerine or oil (in the last named no permanent solution takes place) showed no disinfectant power. By heat it is changed into the corresponding para-combination.

DEATH OF DR. JOHN SCOTT.—John Scott, M.D., M.R.C.S.I., of San Francisco, died of acute pericarditis on December 24. He was born in Ireland, and was about 58 years of age at the time of his death. In his early professional life he was in India for a number of years. When he came to New York in 1865 he spent several months in the study of gynecology under Dr. Emmet, and afterwards went to San Francisco and organized the California State Woman's Hospital, of which he was chief surgeon. Though not a voluminous he was a good writer, a genial companion, and a honor to his profession.

MISSISSIPPI VALLEY MEDICAL ASSOCIATION.—The next meeting of this Society will be held at Crab Orchard Springs, Ky., in July, 1887. There is every prospect of a large attendance, and the papers to be presented give promise of being of unusual value. Physicians having cases to report should communicate with Dr. J. L. Gray, corner Wabash Avenue and Sixteenth Street, Chicago.

THE INDIANA STATE BOARD OF HEALTH.—The Governor of Indiana says in his annual message: The State Board of Health recommends several amendments to the present law to increase its efficiency, to extend its jurisdiction over diseases of domestic animals, and to create the office of State Veterinarian. The Board states that as the people become more familiar with the operations of the various organizations, and the objects to be attained, the more popular the law becomes, and the more readily the rules and regulations of the Board are observed.

PORT PHYSICIAN OF PHILADELPHIA.—The *Sanitary News* says: A lively scramble is being made by Philadelphia politicians for the position of Health Officer of the port, which is an office in the gift of the new governor. A singular and noteworthy fact is that not a solitary name has been suggested for the position which stands for a sanitary worker. They are all political workers. May none of them get there!

SANITARY ASSOCIATION IN MONTREAL.—A much needed Sanitary Association, with 125 members, has been organized in Montreal.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM JANUARY 7, 1887, TO JANUARY 14, 1887.

Lt.-Col Jos. C. Baily, Asst. Medical Purveyor, ordered from Dept. East to New York City, to take charge of the medical purveying depot in that city, relieving Capt. Henry Johnson, Medical Storekeeper, from duty as acting assistant medical purveyor. S. O. 9, A. G. O., Jan. 12, 1887.

Major Harvey E. Brown, Surgeon, granted leave of absence for six months, on surgeon's certificate of disability, with permission to leave the Div. of the Missouri. S. O. 9, A. G. O., Jan. 12, 1887.

Capt. J. K. Corson, Asst. Surgeon, ordered to Ft. Coeur d'Alene, I. T.

Capt. C. E. Munn, Asst. Surgeon, ordered to Ft. Canby, W. T.

First Lieut. J. M. Banister, Asst. Surgeon, ordered to Ft. Coeur d'Alene, I. T. S. O. 227. Dept. Col., Dec. 31, 1886.

Capt. Richards Barnett, Asst. Surgeon, leave of absence further extended six months on account of sickness. S. O. 9, A. G. O., Jan. 12, 1887.

First Lieut. Geo. F. Wilson, Asst. Surgeon, leave of absence extended twenty days. S. O. 9, A. G. O., Jan. 12, 1887.

First Lieut. H. I. Raymond, Asst. Surgeon, ordered for duty at Presidio of San Francisco, Cal. S. O. 127, Dept. Cal., Dec. 29, 1886.

First Lieut. F. J. Ives, Asst. Surgeon, granted one month's leave of absence, with permission to apply for twenty-three days' extension. S. O. 1, Dept. Platte, Jan. 3, 1887.